Author tshingombe tshitadi

Curriculum assessment:

Title

Strategic Evaluation of Advanced Engineering Systems and Pedagogical Innovation: A Professional Audit of Dr. Tshingombe Fiston Tshitadi

Overview

Dr. Tshitadi's career integrates **electrical engineering**, **security systems**, and **education policy**, with a focus on 4IR readiness, curriculum innovation, and traceable compliance systems that support socio-economic development.

Scope

- **Engineering Systems:** AC/DC theory, transformers, motors, PLCs, SCADA.
- **Security Engineering:** Access control, forensic policing logic, infrastructure integrity.
- **Education Policy:** SAQA/DHET frameworks, NATED pathways, curriculum compliance.
- **Socio-Economic Development:** Parliamentary submissions, rural energy research, youth mentorship.

Abstract

A concise audit of a trajectory from TVET foundations to doctoral systems research. Emphasis on automation, nanotechnology, AI integration, and low-code solutions (VBA UserForms) that enable signal-driven, audit-ready technical education and resilient industrial practice.

Description

- **Academic Path:** NATED N1–N3 (St Peace College) → Master's & Doctorate (Atlantic International University).
- **Technical Competence:** Power systems, motor control, PLC/SCADA, diagnostic engines, DLT for secure records.
- **Research Contributions:** Modular learning signals; autodidactic "Copilote" methodology; innovation & discovery record keeping.
- **Policy Engagement:** Submissions to South African parliamentary portfolio committees on higher education, energy, and rural development.

Keywords

Engineering Systems • Security Integrity • Curriculum Policy • 4IR • PLC • SCADA • VBA • Logigram • Nanotechnology • AI • DLT • Compliance • Audit • Socio-Economic Development

Statement — Delivery Management System

A decentralized ecosystem using **VBA UserForms** and logigram logic to manage: student registration and transcripts; engineering diagnostics and trade readiness simulations; inventory and financial compliance; automated audit sheets and bilingual credential exports.

Information & Communication Skills

- **Technical translation:** Convert engineering detail into policy and compliance language.
- **Academic writing:** Thesis, research papers, portfolios of evidence.
- **Stakeholder engagement:** Parliamentary submissions, institutional correspondence, moderation templates.

Administration & Investigation

- **Administration:** Credential mapping, version control, inventory tracking.
- **Investigation:** Forensic policing logic, CCMA/Labour Court processes, complaint tracking.
- **Governance:** Tender documentation, bid compliance, socio-economic advocacy.

Advantages & Disadvantages

Advantages: modular, audit-ready frameworks; scalable low-code tools; integration of AI and nanotech for resilience. **Disadvantages:** cross-domain complexity; interoperability and standards alignment challenges; need for stronger data governance.

Data Analysis & Visual Basic Logigram

- **Data models:** Complaint → Ruling → Rehabilitation; Credential → Export → Audit.
- **Logigram logic:** Star-Delta motor startup flows, ATM simulation, PLC diagnostics, curriculum signal mapping.
- **Automation:** VBA diagnostic engines, compliance audits, curriculum dashboards and export routines.

Audit Conclusion

The portfolio demonstrates a coherent systems approach linking engineering practice to policy impact. To scale impact, prioritize **standardized schemas**, formal **data governance**, and interoperable interfaces across SAQA/DHET/QCTO and industry partners.

Bibliography (Selected Works)

- *Application Trade Discovery: Job Education Research Methodology, Operational Autodidactic Copilote Distance* (F1000Research, 2025).

- *Career Drawing Total Programming: Analysis, Design, Investigation* (F1000Research, 2025).
- Parliamentary submissions to South African Portfolio Committees (Higher Education, Mineral Resources, Agriculture, 2023).
- Thesis: *Rural Energy, Integrity Science, and Educational Frameworks* (Atlantic International University).
- Technical portfolios: VBA UserForms for diagnostics, compliance, and curriculum management.

I can convert this profile into a polished infographic- style HTML report with interactive charts and a timeline using the thematic percentages and competency matrix already outlined; reply **Yes** to proceed or specify any data points you want included.

Career Education Didactic Report

Author: Tshingombe Tshitadi Theme: Curriculum Assessment in Trade & Engineering Education

📖 Overview

This report examines the integration of career education materials, award certificates, diplomas, prizes, and innovative didactic systems within trade and engineering education. It emphasizes curriculum assessment, learner evaluation, and audit-ready documentation.

📚 Scope

- Trade and engineering education at advanced levels
- Credentialing systems: certificates, diplomas, prizes
- Didactic materials: quizzes, evaluation rubrics, learner dashboards
- Innovation and invention recognition in wholesaler and technical contexts

📝 Abstract

Career education thrives when didactic rigor, credentialing, and innovation are combined. This report explores curriculum assessment frameworks, management systems, and audit principles to ensure transparent learner recognition and sustainable educational reform.

🎯 Purpose

- To evaluate career education materials and credentialing systems
- To design audit-ready certificates and diplomas

- To integrate innovation and invention into trade wholesaler education
- To establish transparent quiz and mark evaluation systems

Keywords

Career education, didactic report, award certificate, diploma, prize, innovation, invention, trade engineering, wholesaler, quiz, evaluation, curriculum assessment, audit, management system.

Description

The report describes how career education materials can be structured into audit-ready frameworks, ensuring learners receive visible recognition through certificates, diplomas, and prizes. It highlights innovation in trade engineering and wholesaler systems.

⚠ Problematic

- Lack of standardized credentialing across trade education
- Limited recognition of innovation and invention in curricula
- Inconsistent evaluation methods and mark allocation
- Weak audit systems for compliance and transparency

Statement Report

This report asserts that career education must integrate didactic rigor, credentialing, and innovation recognition to empower learners and align with regulatory frameworks.

Management System Information

- Learner dashboards for progress tracking
- Digital credentialing systems (badges, certificates, transcripts)
- Audit-ready documentation aligned with councils and authorities

Principle Investigation

- Alignment of curriculum with regulatory standards
- Evaluation of innovation in trade wholesaler education
- Transparency in quiz and mark evaluation systems

Method Research

- Comparative analysis of credentialing frameworks
- Case studies of trade engineering education
- Surveys of learner and educator experiences
- Audit of management systems for compliance

✅ Advantages

- Transparent credentialing and recognition
- Motivation through prizes and innovation awards
- Audit-ready documentation for compliance
- Learner empowerment via gamified dashboards

❌ Disadvantages

- High administrative burden for audit systems
- Risk of over-standardization limiting creativity
- Resource-intensive management systems

📄 Management System Information (Expanded)

- Integration of LMS with credentialing dashboards
- Automated quiz banks and evaluation rubrics
- Secure audit trails for certificates and diplomas

📊 Conclusion

Career education in trade and engineering requires a balance of didactic rigor, credentialing, and innovation recognition. Audit-ready systems ensure transparency, while prizes and certificates motivate learners to achieve and invent.

📋 Audit

- Verification of certificate and diploma authenticity
- Compliance with national and international councils
- Continuous monitoring of learner progress and evaluation systems

📚 Bibliographic (Sample References)

- Council on Higher Education (CHE) guidelines
- Engineering Council of South Africa (ECSA) standards
- UNESCO TVET frameworks
- International Journal of Technical Education & Training

This structure gives you a **complete academic-style report** that can be adapted into curriculum assessment documentation, certificate design, or audit frameworks.

Would you like me to **expand this into a polished certificate/diploma template** (with placeholders for learner details, marks, and achievements), or into a **sample quiz bank with**

evaluation rubrics to demonstrate the assessment system? Both would make this report more tangible.

Contents

Title 3
Overview 3
Scope 3
Abstract 3
Description 3
Keywords 3
Statement — Delivery Management System 4
Information & Communication Skills 4
Administration & Investigation 4
Advantages & Disadvantages 4
Data Analysis & Visual Basic Logigram 4
Audit Conclusion 4
Bibliography (Selected Works) 4
Career Education Didactic Report 5
📖 Overview 5
Scope 5
Abstract 5
Purpose 5
Keywords 6
Description 6
⚠ Problematic 6
Statement Report 6
Management System Information 6
Principle Investigation 6
Method Research 6
✓ Advantages 7
✗ Disadvantages 7

Management System Information (Expanded) 7
Conclusion 7
Audit 7
Bibliographic (Sample References) 7

Data shet analyse

Student/Applicant Name	ID/Reference Number	Institution/College	Qualification/Subject	NQF Level	Module/Activity Description	Mark/Allocation/Value	Status/Outcome	Source
Tshingombe Tshitadi Fiston	2100002023812 / 20191130002 / 2100000002812 / 2004007064381	St. Peace College / Shalom Technical College	National N Diploma: Electrical Engineering (Engineering Studies)	6	Comprehensive N1–N6 curriculum covering Electrical Trade Theory, Mathematics, Electrotechnics, Logic Systems, and Industrial Electronics; includes final assessments and investigations into examination irregularities.	360 credits / 50% pass requirement	Under investigation for irregularities; some results released 01/02/2024	[1-8]
Tshingombe Tshitadi Fiston	TIRGOG000910610 / TIRCOG000910610	St. Peace College / Shalom Technical College	Electrical Trade Theory / Engineering Electrical	3	Trade theory examination, panel wiring, and practical research visits to City Power; includes	100 marks / 80%	Under investigation; center collapsed; backlog noted	[1, 4, 7, 9, 10]

					investigation of November examination cycle irregularities.			
Tshingombe Tshitadi Fiston	Not in source	Atlantic International University (AIU)	Masters of Engineering Systems (Electrical Engineering)	9	Advanced program including Master Thesis Project (7,500 words), Applied Physics, Supply Chain Management, and Control Systems Design.	$150 USD (Registration Fee)	Acceptance and placement offer set; pending fee payment	[4, 5, 11, 12]
Tshingombe Tshitadi Fiston	SCM193/2019	South African Police Service (SAPS)	Chief Engineer (Electrical)	6	Management of electrical aspects of construction projects, design, documentation, and inspection.	R796,965.00 per annum	Application Review / Closed 2019-05-10	[2, head office, 2777-2778]
Tshingombe Tshitadi Fiston	Not in source	St. Peace College	National Certificate in Traffic and Policing (Resolving of Crime)	6	Criminal Investigation Principles, Administration, Information Management, and Practical Training.	70% Practical, 30% Theory	Registration in progress	[2-4]

Tshingombe Tshitadi Fiston	MCID: 99587175	Microsoft Training / Microsoft Learn	Data Engineering on Azure	Not in source	Introduction to securing data and managing users in Azure Synapse serverless SQL pools.	1,225,400 XP	Successfully completed	[4, 6]
Tshingombe Tshitadi Fiston	46307064	Microsoft Ignite / Learn	AI Fluency, C# Programming, and GitHub Copilot	Not in source	Learning paths for APL-2007 (GitHub Copilot), Build custom agents for Microsoft Teams, and basic C# syntax.	100%	Completed	[13]
Tshingombe Tshitadi Fiston	37876299	Alison / Alison Learning	Electrical Transformer Components	Not in source	Beginner level electrical engineering course focusing on transformer components.	86%	In Progress	[14, 15]
Tshingombe Tshitadi Fiston	31136901 / 117354	PSIRA / Alison	Security Officer Registration / Security Guard & CCTV Monitoring	Not in source	New application for registration; training includes Grade A/B/C/D/E and CCTV monitoring.	92% (Diploma)	Inactive / ID closed; Training completed	[5, 6]
Tshingombe Tshitadi Fiston	GAJB 6808-15	CCMA / Labour Court / Nogada	Labour Relations / Unfair Dismissal	Not in source	Dispute and rescission ruling application	R20,000.00	Rescission ruling not granted;	[4, 5]

		SA	Case		concerning unfair dismissal from 2015.		review dismissed	
Tshingombe Tshitadi Fiston	ETNFRFSWHR_EL	Eaton University	Functional Skills: Human Resources	Not in source	eLearning HR Workshop module for professional development.	97 minutes	Certificate Issued	[16, 17]
Tshingombe Tshitadi Fiston	210000202 3812 / 210000002 02812	Shalom Technical Center	Electrotechnics N4 / Mathematics N4	4	External examinations (F8080074 and F16030164) for N4 Engineering Studies.	Not in source	Examined / Admission permit issued	[2, 3, 7]
Tshingombe Tshitadi Fiston	Not in source	Atlantic International University (AIU)	Geotechnical Engineering / Company Setup	Not in source	Live class session participation and discussions on geotechnical engineering and business setup.	Not in source	Certificate of Participation awarded	[15, 18, 19]
Tshingombe Tshitadi Fiston	Project-25 / Project-17	Tshingombe Engineering	Engineering Trade Application	Not in source	BOM Management, Product Configurator, and project tracking activities.	R385,363.62 to R400,547.09	Modified 2025	[17]
Tshingombe Tshitadi Fiston	Project-12 / Project-11 / Project-3	Tshingombe Engineering	Engineering	Not in source	Framework implementation and system	R15,985.00 to R119,344.00	Open	[20]

					logic control projects.			
Tshingombe Tshitadi Fiston	40445 / 38169 / 31008 / 36199 / 36800	Eaton	Various Technical and Specialist Roles	Not in source	Applications for Area Sales Manager, Production Technician, Power Systems Engineer, Tax Analyst, and Battery Specialist.	Not in source	Under Consideration / No Longer Under Consideration	[16]
Tshingombe Tshitadi Fiston	7496 / 7499 / 7198 / 7490 / 7479	SARS	Audit and Debt Collection Roles	Not in source	Job applications for Ops Manager (Audit), Debt Collector (Estates), Auditor, and Portfolio Maintenance.	Not in source	Under review / Rejected / Awaiting analysis	[21]
Tshingombe Tshitadi Fiston	IJETR3157	Engineering Research Publication	Electrotechnical Engineering	Master Level	Case Report: Research and project master energy rural career experimental engineering electrical job.	$99 USD	Accepted	[14]
Tshingombe Tshitadi Fiston	2022/ndoh-0809	Department of Health	Supply and Delivery of RDX 320 Vacuum	Not in source	Project tender for the supply of medical	R550,000.00	Quotation received	[4]

			Autoclaves		machinery.			
Tshingombe Tshitadi Fiston	ETDP-AS-000006376	ETDP SETA	Assessor Application	Not in source	Application for official assessor status in applied scope.	Not in source	Rejected due to missing documents	[10]
Tshingombe Tshitadi Fiston	117354 / 329-1631109IS	Eskom (Arnot Power Station)	Security Guard	Grade 12	Access control, patrol duties, reaction team, and emergency preparedness.	Task Grade T05	Application for vacancy	[2, 3]
Tshingombe Tshitadi Fiston	15094 / 31188	Eaton	Field Service Engineer / Representative	Not in source	UPS field services, installations, repairs, and general field service engineering applications.	Not in source	Unsuccessful / Under Review	[9, 21]
Tshingombe Tshitadi Fiston	Not in source	Eskom	Engineering / Education and Training Roles	Not in source	Applications for Civil Auxiliary Plant (Lethabo), Engineers in Training (Kusile), and Senior Advisor (Peaking).	Not in source	Applied 2024	[22]
Tshingombe Tshitadi Fiston	Job 1755381 / 1749784	Microsoft	Software Engineer II	Not in source	Applications for Software Engineer II (General) and Software Engineer II	Not in source	Evaluating / Unsuccessful	[9]

					(Full Stack).			
Tshingombe Tshitadi Fiston	00100839 / 00107251	National Science Foundation (NSF)	Energy Technologies / Other Topics	Not in source	SBIR/STTR Project Pitch for Energy Technologies and Career Center Discovery Framework.	Not in source	Declined / New	[14]
Tshingombe Tshitadi Fiston	Not in source	Academy of Training and Development	Electrical / Civil Engineering N4–N6	N4-N6	NATED vocational engineering programs for electrical and civil disciplines.	Not in source	Accredited (Start: 2015)	[13]
Not in source	C243 74 / H23E 74	Scottish Qualifications Authority (SQA)	Engineering Skills / Engineering Science	SCQF level 4	Mechanical, Electrical/Electronic, Fabrication, Manufacture, and Assembly units.	6 to 24 SCQF credits	Valid / Assessment Standard	[3, 23]
Not in source	MIL-STD-11991B	Department of Defense	Parts, Materials, and Processes	Not in source	General Standard for Parts, Materials, and Processes (PM&P) for military systems.	Not in source	Approved for use	[24]

[1] portofolio career ,Research college engineering career joint gov compagny department(4).docx
[2] Portofolio evidence low dhet saqa su(2).docx
[3] Portofolio evidence low dhet saqa su(3).docx
[4] thesis atlantic circulum final build Request an intellectual property (IP) licence _ Metropolitan Police.pdf
[5] course ciriculum total course thesis alumine(2)(1).docx

[6] Proposal of thesis content 2 final research(3).docx
[7] zaire exam papper final exam n1,n2,n3,n4n5,n6 dhet ,, saqa finalForeign institutions inquiries.docx
[8] careeer 23 ,disciplin didact education , assessment education , educ theory portofolio, educat investigation , experimental , education engineering system master , edcatio publish ,educat neural ,pc.docx
[9] ACFrOgAJMfh9xwDrlGM_5LlxjpkWwe5ufW87iWmMyLwVLmOEvyAWZaQG3YSs92Fmo5wDo6MYUJIWn06KqksEqzKuBHvF7lnbLNIPYMVwDOUyRhIBgJ14FrccQqGDHbjio4OCf-ftW35T1kdkbhx5tw8LaTl-3D9F4zQY5rPJBQ==.pdf
[10] careeer 23 ,disciplin didact education labour ,social legislation low policy.docx
[11] Atlantic International University(4).docx
[12] thesis course energie rural ..(1)(1).docx
[13] career 21 application trade technical documentation exper rwiten assessment career librarie mentoring Review reference bibliographic.docx
[14] career 21 application trade technical documentation exper rwiten assessment career librarie mentoring Review reference bibliographic.docx
[15] Career center final rwiten scie bono dhet nated , peace tshingombe faciltator note(1).pdf na.docx final(4).docx
[16] experimental university eaton data learning Completion Notification for Eaton(1)(1).docx
[17] f1000research-757660.pdf
[18] Certificate engineering mining S.PNG
[19] Certificate(1).PNG
[20] experimental scheiner university summary Product Selector Tool(1)(1).docx
[21] zaire jobMy Candidate Profile.docx
[22] experimental City Power tshingombe.docx
[23] form microsoft experimental thesis atlantic ....pdf
[24] MIL-STD 11991B.pdf

Based on 50 sources

Title	Category	Author/Provider	Subject Description	Price/Cost	NQF Level	Location/ Venue	Source
National N Diploma: Engineering Studies (Electrical)	Engineering	DHET / SAQA / St. Peace College / Shalom Technical	Comprehensive qualification (360 credits) covering electrotechnology, industrial electronics, and mathematics	Not in source	6	84 President Street, Johannesburg	[1-4]

			for professional engineering and experiential training.				
Engineering Electrical N4-N6 Assessment/Implementation	Engineering	St. Peace College / Africa Institute Policing	Research and implementation framework study for electrical and electronics engineering including data science analytics and central banking.	R 15,004.00	6	84 President Street, The Markade Building, 5th Floor, Johannesburg	[2, 5, 6]
Diploma in Policing	Security / Law	St. Peace College & Africa Policing Institute	Vocational course for officials in detective services covering criminal investigation, crime resolution, administration, and information management.	Not in source	6	84 President Street, The Markade Building, 5th Floor, Johannesburg	[7-9]
Manager ICT Security (Vacancy)	IT / Security	City Power Johannesburg	Professional role focusing on safeguarding information, data security best practices, IT security risk	Not in source	6	Johannesburg	[10]

			assessments, and disaster recovery planning.				
Radio Technical Unit Recruitment (TMS 36/2019)	Security / IT / Engineering	South African Police Service (SAPS)	Repairs, installation, removals, and maintenance of radio equipment and infrastructure at Radio High Sites.	Not in source	6 or 4	Technology Management Services, Pretoria	[1, 11]
Electrical Engineering N1-N3	Engineering	St. Peace College / DHET	Theoretical and practical training in electrical engineering including mathematics, engineering science, industrial electronics, and trade theory.	R 5,000.00 (Estimated)	1, 2, 3	20 Percy Street, Yeoville, Johannesburg	[7, 12]
National Certificate in Paralegal Practice	Law	St. Peace College Policing Academy	Vocational training in paralegal practice, legal standards, and assistant certification.	Not in source	5	Johannesburg	[8, 9, 13]
National Certificate Traffic Law	Law / Security	St. Peace College Policing Academy	Regulatory and legal training for traffic law	Not in source	5	Johannesburg	[8, 9, 13]

			enforcement and frameworks.				
Snr Engineer Prof Electrical (Generation)	Engineering	Eskom	Provision of specialist engineering services to generation power stations, including life cycle plans and technical evaluations.	Task Grade: P16	8	Duvha Power Station, Mpumalanga	[1]
Operation GENIAC: Engineering & Education Technologies Framework	Engineering / IT / Security	Tshingombe Fiston Tshitadi	Integration of Military Combat Engineering, Security Systems, and Technical Oversight utilizing Visual Basic automation and scenario modeling.	Not in source	5/6 tracking	Online / Pretoria	[14]
Support for Energy-Efficient Electrical & Industrial Systems (S.E.E.E.I.S.U.A)	Engineering / Energy	Tshingombe Tshitadi Fiston	A proposal for unified energy governance, industrial metering, load shedding compliance, and substation modernization logic.	R 50,000,000,000.00	Not in source	South Union Africa / Johannesburg	[14]
Electrical Infrastructure and	Engineering /	CHIETA	Training in electrical	Not in source	2, 3, 4	St. Peace College	[1]

Building Skills	Construction		and building skills, specifically control panel wiring.				
Electrician (Shift Worker)	Engineering	City Power	Professional role requiring maintenance, repair, and installation of electrical systems and equipment across all voltage levels.	R 350,966.00	N2	Various Service Delivery Centres (SDCs), Johannesburg	[11, 15]
AI Fluency Program	IT / Artificial Intelligence	Sci-Bono ICT Academy / Microsoft	Mastery program covering AI foundations, machine learning, generative AI, responsible AI, and Microsoft Copilot through 44 videos.	Free	Not in source	Online	[7, 12]
Microsoft Certified: Azure AI Engineer Associate	IT / AI	Microsoft	Training to design and implement Azure AI solutions, including search, OpenAI, knowledge mining, and AI agents.	Not in source	Intermediate	Online	[14]
Cisco Cybersecurity	IT	Sci-Bono ICT	Training on cybersecurit	Not in source	Not in source	Sci-Bono Discovery	[7, 15]

Course		Academy / Cisco	y operations and security essentials for youth aged 18-25.			Centre	
4IR Development Program	IT	Sci-Bono Discovery Centre	Training including Cisco CCNA, Cybersecurity, Python, Linux, and IoT.	Not in source	Not in source	Johannesburg	[11]
CCNA / Linux / Python Essentials	IT	Sci-Bono ICT Academy	Technical skills training for youth aged 18-25 focusing on networking and programming.	Not in source	Not in source	Johannesburg	[12]
Animal Production NQFL1	Agriculture	NSF	Learnership and skills programme for animal production involving credits and stipends.	R 200.00 per credit	1	Gauteng	[5]
N3 Electrical Trade Theory	Engineering	DHET	Examination and assessment results for engineering studies including electrical trade theory and industrial orientation.	Not in source	3	Shalom Technical College	[3, 16, 17]
Mechatronics Skills Programme	Engineering	Merseta	Covers air conditioning	Not in source	3	Not in source	[1]

			, refrigeration, ventilation, welding, and control instruments (HVAC).				
Technical Matric N3 Extension	General Education / Engineering	Ekurhuleni Tech College	Adult matriculation bridging course including Business English and Sake Afrikaans.	Not in source	Not in source	Online / Call Office	[8, 9]
National Certificate Electrical Engineering	Engineering	DHET / SAQA / Afric Training Centre	Accredited training for electrical engineering infrastructure and practical trade skills.	Not in source	2	Afric Training Centre	[3]
Long-Term Insurance Qualification	Insurance	INSETA	Entry-level training for insurance brokers covering foundational industry knowledge.	Not in source	4	Work-based experience locations	[12]
Schneider Home Certification	Engineering / IT	Home and Distribution Academy	Instruction on installing and commissioning Schneider Home energy management systems including inverters and	R 0.00	Not in source	Online	[18]

			backups.				
A-Lab Application ID 14	Engineering	SABS EMC Department	Application for A-Lab services relating to trade engineering electrical research.	R 120,000.00	Not in source	SABS Commercial SOC Ltd, Pretoria	[19]
IEC 62368-1:2023 Academy Masterclass	IT / Engineering	IEC	Special offer for the purchase of IEC 62368-1:2023 RLV and masterclass registration.	CHF 578.40	Not in source	Online	[19]
Certificate Award (Transcription Project)	Law	Labour Court Johannesburg	Transcription of legal proceedings and record of digital audio.	R 750.00	Not in source	Johannesburg	[13]
Complaint Affidavit (Sheriffs Act 90/1986)	Law	South African Board for Sheriffs	Regulatory form for reporting improper conduct by a sheriff in terms of Section 44(1).	Not in source	Not in source	Johannesburg Central	[20, 21]
CCTV Installation Training	IT / Security	St. Peace College & Africa Policing Institute	Training in CCTV systems, camera/lens types, recording footage, and scene illumination.	Not in source	Not in source	Engineering Workshop, Johannesburg	[8, 9]
Building a Modern Power Electronics Lab	Engineering	Cleveland State University	Curriculum and laboratory	Not in source	Undergraduate	Cleveland State University,	[22]

			setup for undergraduate electrical engineering, covering transformers and motors.			Ohio	
Fit Appliance Electrical Quote (QU-0002)	Engineering / Trade	Tshingombe	Quote for subcontracting engineering electrical manufacture, installation design, and policy assessment.	R 340,000,000.00	Not in source	Johannesburg	[23]
Information Management Systems Invoice	IT / Education	Tshingombe	Instructor fees for database operating systems, cybersecurity policy, robot intelligence, and CAD drawing.	R 26,268,387.40	Not in source	Johannesburg	[23]
Business Engineering Quote (QU-0001)	Engineering / Business	Tshingombe	Quote for 3 years study in business development, executive management system, and engineering process.	R 20,000.00	Not in source	Pretoria	[23]
Invitation to Bid	Tender	Municipality	Formal invitation for requirements for a municipality with a total	R 1,000,000.00	Not in source	Johannesburg	[16]

			bid price and item count.				
Work readiness programme (5 days)	Professional Development	NSF	Non-credit bearing skills programme for work readiness including learner allowance.	R 100.00 per day	Not in source	Gauteng	[5]
Planetarium and Climbing Wall Package	Educational / Leisure	Sci-Bono	Science activity and birthday packages including planetarium shows and graphite circuit experiments.	R 2,200.00 - R 2,500.00	Not in source	Sci-Bono Discovery Centre	[1, 3]
HR Approved Policies Course	Law / Regulatory	Sci-Bono Online Learning	Course on organizational frameworks including disciplinary, fraud, corruption, and employment equity policies.	Not in source	Not in source	Online	[7]
N2 Electrical Trade Theory Lecturer Guide	Engineering	Future Managers	Equips students with theoretical knowledge for electrical apprenticeships and learnerships	Not in source	Not in source	Mowbray, Cape Town	[16]

			.				
MIL-STD 100G: Engineering Drawings	Engineering	Department of Defense (DoD)	Standard practices for preparation of engineering drawings, CAD requirements, and coding procedures.	Not in source	Not in source	Picatinny Arsenal, NJ	[24]
Wholesale School Chairs	Education Supplies	Alibaba.com	College student metal chairs with writing tablets and school meeting furniture.	R 47,928.15	Not in source	Pretoria	[25]
FDB Versatile Desk	Education Supplies	Game	School furniture for classroom use.	R 599.00	Not in source	South Africa	[25]
Mapping Qualification to NQF	Law / Education	UNESCO-UNEVOC	Online discussion thread for TVET experts on qualification frameworks.	Not in source	NQF	Online	[13]
Essentials of Electrical Safety	Engineering / Safety	Alison (CPD Certified)	Fundamental principles and practices of electrical safety in the workplace.	Not in source	Not in source	Online	[26]
Nanotechnology Module	Science & Technology	Sci-Bono / DST / NRF	Module on nanotechnology applications in water, medicine, energy, and	Not in source	Not in source	Sci-Bono Discovery Centre	[7, 12, 15]

			safe mining practices.				
Career Planning and Technical Future	Professional Development	Sci-Bono	Guides on technical/artisanal careers, workplace readiness, and debunking career myths.	Not in source	Not in source	Sci-Bono Career Centre	[1]
Security Guard Vacancy	Security	Eskom Protective Services	Physical security duties to protect Eskom assets; requires Grade 12 and PSIRA Grade C.	Not in source	Not in source	Arnot Power Station, Mpumalanga	[9]
Certificates of Bid Determination (SBD 8 & 9)	Regulatory Form	National Treasury	Standard bidding documents to prevent bid-rigging and combat abuse of supply chain systems.	Not in source	Not in source	Johannesburg	[16]
Master's in Artificial General Intelligence	IT	Not in source	Focuses on ethical considerations, human-machine collaboration, and economic implications of AGI.	Not in source	Not in source	Not in source	[27]
K53 Learner’s License Guide	Traffic Law	Not in source	Instructional material for South	R 59.00	Not in source	Not in source	[12]

African learner's license preparation.

[1] letter employment self assement , Incidence eaton employement.docx
[2] engineering electrical tshingombe.docx
[3] memotech engineering trade college(3).docx
[4] DIPLOMA AWARD CERTIFICATE NATIONAL FRAMEWORK QUALIFICATION DESIGN ENGINEERING STUDIES - Copy.xlsx - Sheet1.pdf
[5] Application Template Disability RFP Phase 1.docx
[6] tshingombe sarb project Engineering electrical(1).docx
[7] Copy referall lab iot PROJECT DRAWING WORKSHET TSHINGOMBE DESIGN ANALYSE ENGIN 15.xlsx,.pdf.xlsx - Sheet1.pdf
[8] Portofolio evidence low dhet saqa su.docx
[9] Portofolio evidence low dhet saqa su.docx
[10] Incident logged on 2024, supplie letter tendered(1).docx
[11] portofolio career ,Research college engineering career joint gov compagny department(2).docx
[12] Career 3 total experience discovery tshingombe tshitadi.docx microsoft.docx 4(2).pdf
[13] Portefeuil education tvet doc topic case book saqa.docx
[14] CAREER 36 EDUCATION ACADEMIC SECURIRTY SAFETY POLICY ENGINEERING TECHNICAL VS POLICY COMPAGNY REGULATORY FRAMEWORK EDUCATIN MANAGEMNT SYSTEM.docx
[15] portofolio career ,Research college engineering career joint gov compagny department(2).docx
[16] Supplies bidden tendered scope work and studielabour treasure , (Repaired)(2).docx
[17] statement dhet saqa I'd transcript screen saqa-1-1.pdf
[18] Record news reprinted statement(6).docx
[19] ACFrOgAJMfh9xwDrlGM_5LlxjpkWwe5ufW87iWmMyLwVLmOEvyAWZaQG3YSs92Fmo5wDo6MYUJIWn06KqksEqzKuBHvF7lnbLNIPYMVwDOUyRhIBgJ14FrccQqGDHbjio4OCf-ftW35T1kdkbhx5tw8LaTl-3D9F4zQY5rPJBQ==.pdf
[20] Untitled_20231009_135338-1.PDF
[21] Untitled_20231009_135338.PDF
[22] Career tshingombe tshitadi mentoring council trade qualification(3).docx
[23] Invoice INV xero tshingombe (Repaired) 345.docx
[24] ADA361444.pdf
[25] Portefeuil education tvet doc topic case book saqa.docx
[26] unnamed(10)(1)(2)(1).jpg
[27] research fund science ,, skill research ,, .tshingombe

Based on 50 sources

Year or Peri	Innovation or Milestone	Company or Contributo	Key Functionality or Specification	Industry Sector	Count ry or Regio	Source

od		r		n		
Not in source	Mobile Network Generations Evolution (1G to 5G)	Not in source	Transition from analog to digital; increased data rates; evolution of cellular architecture (eMBB, mMTC, URLLC); tracking historical evolution and specifications.	Consumer Telecommunications	Global	[1-8]
1979	First commercial mobile network (1G)	Not in source	Analogue network active in Tokyo, then nationwide; enabled mobile voice calls.	Consumer Telecommunications	Japan	[6, 9]
1980s	Emergence of 1G networks	Not in source	Analogue mobile telephony.	Consumer Telecommunications	Global (Japan, USA, Europe)	[6]
1991	Implementation of 2G (First digital mobile network)	Radiolinja (now Elisa Oyj)	Digital encryption, SMS, MMS, and higher efficiency.	Consumer Telecommunications	Finland	[6, 9]
2001	Introduction of 3G network	Not in source	High-speed data transfer; enabled lighter and simpler devices.	Consumer Telecommunications	Global	[6, 9]
2014	Introduction of 4G network	Not in source	Fourth generation high-speed digital mobile network.	Consumer Telecommunications	Global	[6, 9]
2024	5G and Spatial Computing Integration	Not in source	Frequencies 3490−4200 MHz; permissible interference It =−170.0 dB; precise location services and OFDM (Fourier transforms) for spectral efficiency.	Consumer Telecommunications	Europe	[1, 2, 10]
1994	Simon Personal Communicator	BellSouth	Early smartphone; calling, email, fax, and digital calendar functionalities.	Consumer Telecommunications	USA	[6, 9]
1996	Nokia Communicator	Nokia	PC functionalities including email, web browsing, word processing, fax, and telephony.	Consumer Telecommunications	Finland	[6, 9]

2000	Coining of the name 'smartphone'	Ericsson	Marketing campaign to increase consumer popularity and concept recognition.	Consumer Telecommunications	Global	[6, 9]
2007	Launch of the first iPhone	Apple	Internet-enabled smartphone; revolutionized mobile internet access.	Consumer Telecommunications	Global	[6, 9]
2002	AdvancedTCA (ATCA) Specification (PICMG 3.x)	PICMG organization	Carrier-grade, high-availability system architecture; high-speed interconnect; 100Ω differential signals; 280mm deep/322mm high boards; redundant −48 VDC power.	Industrial Telecommunications	Global	[6, 9]
2017	AdvancedTCA (ATCA) Industrial Standard	Industrial PC Manufacturers	High-availability system architecture for telecommunications computing and network infrastructure.	Consumer Telecommunications	Global	[23, User Description]
Not in source	AdvancedTCA Standard Implementation	Not in source	Modular, scalable rack-based power system (14−40 kW) with PDU and static bypass.	Industrial Power	Global	[2-5, 7, 10]
1923	Establishment of Electricity Supply Commission (ESCOM)	Eskom	Public utility for electricity generation, transmission, and distribution.	Industrial Power	South Africa	[11]
1960 - 1990	First expansion period	Eskom	Installed capacity increased from 4,000 MW to 40,000 MW; 400 kV nationwide power network.	Industrial Power	South Africa	[11]
1984	Koeberg Power Station commissioning	Eskom	Nuclear Power Plant; 1,860 MW capacity.	Industrial Power	South Africa	[11]
1902	Invention of Mercury-arc rectifiers	Peter Cooper Hewitt	High-voltage, high current AC to DC conversion; arc voltage 20−30 V; used pool of liquid mercury as cathode.	Industrial Power	USA	[12, 13]
1970	Transition from	Not in	Semiconductor rectifiers	Industrial	Global	[13]

s	Mercury-Arc to Semiconductors	source	and thyristors replacing mercury arcs.	Power		
2024	MTL4500/MTL 5500 Safety Standards	Eaton Electric Ltd	Analogue Input Modules; SIL 2; IEC 61508:2010 compliance; 4/20 mA HART loop.	Industrial Power	Global	[11]
2023 - 2025	S.E.E.E.I.S.U.A Framework	Tshingombe Tshitadi Fiston	Energy-efficient electrical systems; 3600 kWh annual indexing; budget forecast R50 billion for 50,000 MW; integration of MIL-STD-810 and IEEE 1459.	Industrial Power	South Africa	[14, 15]
2024	Modicon M580/M660 Safety & Configuration	Schneider Electric	Redundant systems; Hot-standby CPU; Parallel Redundancy Protocol (PRP); 960-minute safety training modules.	Industrial Power	Global	[4, 5]
2013	Probabilistic Risk Assessment (PRA) for Data Centers	Schneider Electric / M Technology, Inc	Mathematical calculation for evaluating reliability; failure rate analysis.	Industrial Power	Global	[10]
2013	Scalable Modular Rack-Based Power System	Schneider Electric	14−40 kW capacity; PDU and static bypass; 40% lower failure rate than central UPS.	Industrial Power	Global	[16]
2021	MKM35Z512 Smart Power Meter Reference Design	NXP Semiconductors	Three-phase smart meter; 24-bit AFE; Arm Cortex-M0+; accuracy class 0.5; 0−60 A; 240 VAC.	Industrial Power	Global	[17]
2025	Speed Control of a Brushed DC Motor (EMF Control)	Rainer Schuster	ATtiny45 MCU; EMF measurement proportional to speed; PWM frequency 245 Hz.	Industrial Power / Electronics	Germany	[12, 13]
2022	B2B E-commerce Data Management	Beijing Huadian E-commerce Technology Limited Company	Catalog of 346,672 products; analysis of behaviors: order, following, browsing, bidding, and non-bidding data.	Industrial Power	China	[1, 2, 8]
2008	National Qualifications	SAQA	Act No 67 of 2008; framework for lifelong	Vocational Education	South Africa	[3, 11, 13, 18-

	Framework (NQF) Act		learning and professional qualification registration (Levels 1 to 10).			20]
1997	Higher Education Act (No. 101 of 1997)	DHET	Regulatory framework for private higher education registration and compliance.	Vocational Education	South Africa	[13, 20]
2009	Electrical Installation Regulation	Department of Labour	Regulation 7(1); SANS 10142-1 standard; issuance of Certificate of Compliance (CoC).	Industrial Power / Vocational Education	South Africa	[1, 3]
1992 - 2025	TVET Certification Backlog Task Team	DHET, Umalusi, and SITA	Addressing certification backlog for NATED and NCV qualifications dating back to 1992.	Vocational Education	South Africa	[14, 15]
2019 - 2024	NATED Engineering Coursework Completion	Tshingombe Tshitadi Fiston	National N Diploma Engineering Studies (N1-N6); NQF Level 6; 360 credits.	Vocational Education	South Africa	[10, 21, 22]
2025	Career Drawing Total Programming Publication	Tshingombe Tshitadi Fiston	Modular career-curriculum-signal integration system; DOI: 10.7490/f1000research.1120368.1.	Vocational Education	South Africa / Global	[7, 23]
1911	Company Foundation	Eaton	Founding of intelligent power management company.	Industrial Power	USA / Global	[16]
2025	Azure Data Center Scaling	Microsoft	Power distribution optimization using load balance integrals across nodes; heat dissipation modeling for server durability.	Industrial Power	Global	[24]
Not in source	Shannon–Hartley Theorem	Claude Shannon and Ralph Hartley	C=Blog2 (1+S/N); maximum rate for information transmission over a channel.	Information Theory / Telecommunications	Not in source	[19]
2021	POPI Act (Protection of Personal Information Act)	South African Information Regulator	Full enforcement from July 1, 2021; regulates processing, collection, and storage of personal information.	Regulatory Framework	South Africa	[25]
2025	RSA Certificate Validation	Tshingombe Tshitadi	RSA 2048-bit; SHA-256 signature; validity	Information Systems	United Kingd	[4, 5]

	Framework	Fiston / Sectigo CA	tracking for security systems.	om	
2023	Web-Based Crime Management System Development	Demelash Lemmi Ettisa & Minota Milkias	Online application for crime reporting and record management; client-server architecture. Information Systems	Ethiopia	[5]

[1] course ciriculum total course thesis alumine(1)(3).docx
[2] course ciriculum total course thesis alumine(2)(1).docx
[3] ACFrOgDBOFxk_wgs7s3kvfoaK_UHG2rfuh2H6Ksaq95nZz6GgH5cAjrZn4k-7PbxLUK0BbpXrbvr9ncW2NLqkHcpjjhKbTpa1-wqYXgNthG9dN7MmdMtgJJsrxcHw7vDXur2zrvRYNQ2_4emmBis1iBZafk8K34-rvLzUHMtBg==.pdf
[4] career 112 application trade discovery job research edu research methodolgie reseaarch operationel autodidact copilite.pdf
[5] Career112 application trade discovery job research edu research methologie research operationel , autodidactic copilote distace 2.docx
[6] he history of telecommunications(1).docx
[7] CAREER 25 FREELANCE EDUCATION MONTESORY.docx
[8] thesis course energie rural ..(1).docx
[9] he history of telecommunications(1).docx
[10] thesi project book , final engineerin tshingombe , time table allocation job cost(3).docx
[11] thesis exerimental total compagn nd atlantic ,,,Request an intellectual property (IP) licence _ Metropolitan Police-1.pdf
[12] experimental2 career thesis tlantic office pc lab(3).docx
[13] experimental2 career thesis tlantic office pc lab(3).docx
[14] careeer 23 ,disciplin didact education labour ,social legislation low policy.docx2.pdf
[15] careeer 23 ,disciplin didact education labour ,social legislation low policy.docx
[16] Tshingombe fiston (tshing .. _ My Courses _ Schneider Electric University(4).docx
[17] AN13338-1.pdf
[18] Kananga5_2-engineering-letter-experience-thoretical-practial-tshngomb_ 2 letter engineering experience pratical letter, employemnt-1.pdf
[19] Portofolio evidence low dhet saqa su(2).docx
[20] Letter experimental job experience print batchellor 2.docx
[21] Proposal of thesis content 2 final research(2).docx
[22] career experimental thesis revision reseach(2).docx
[23] careeer 20 drawig material didactic autopedagogie panel teach, psychometri fundamental pedagogie phenomen.docx
[24] career experimental thesis revision reseach(3).docx

Based on 50 sources

Date	Recipient/Organization	Reference Number	Subject/ Matter	Request Status/	Document/Attachment Name	Details/Description	Source

						Action	
01/10/2024	Metropolitan Police Service (MPS)	FOI-23235-24-0100-000 / 01/FOI/24/040452/M	Freedom of Information (FOI) enquiry regarding personal data rights	Rejected	DATA RIGHTS 2024 (FOI) -S8 (INVALID REQUEST).pdf	The enquiry was not considered a valid request under Section 8 of the Freedom of Information Act 2000 as it failed to clearly describe the information sought.	[1-3]
27/09/2024	Metropolitan Police Service (MPS)	01/FOI/24/040452/M	Freedom of Information (FOI) request for personal data or general information	Rejected (Invalid Request)	DATA RIGHTS 2024 (FOI) -S8 (INVALID REQUEST).pdf; Decision Letter	The request was deemed invalid under Section 8(1)(c) of the FOI Act because it did not clearly describe the information being sought.	[4, 5]
05/11/2024	SAQA (South African Qualifications Authority)	JXL6JWJL31FNJY17GWWMWQ	Evaluation of foreign qualification	Pending (Instruction provided)	dfqeas	Instruction provided to the applicant (Tshingombe Fiston) to use the	[2, 3, 6, 7]

						online portal for evaluation of Congo school leaver qualifications. Estimated turnaround time is 90 working days.	
23/10/2024	Department of Higher Education and Training (DHET)	Not in source	NN Diploma, Nated, and NCV certificate enquiries	Completed (Automated Response)	Automated response	Automated response informing that the issuance of NN Diplomas is currently paused; students may obtain confirmation letters from colleges in the interim.	[1-3, 6, 7]
17/11/2024	Internet Archive	Not in source	Engineering, Education, and Compliance Portfolio Digital Archive	Completed	OneDrive_137_11-17-2024.zip	Upload of a comprehensive academic and professional portfolio including electrical engineering records, vocational	[1-3, 6, 7]

						certificates, and data rights files by creator Tshingombe Tshitadi.	
01/02/2024	Department of Higher Education and Training (DHET)	INC000025277051	Release of N3 statement of results	Completed	Waybill 080057034873	N3 statement for 2023/11 exam sent to Shalom Technical College. Candidate (ID 2100002023812) noted as not passsing all subjects required for a full certificate/ diploma.	[2-4, 6, 8]
05/08/2024	Office of the Inspector-General of Intelligence (OIGI)	OIGI/IG10(IG80)/6/1/14/5; DIRD07: 12538	Complaint regarding deleted college records	Rejected (Outside Mandate)	Outcome Letter; Signed letter to Fiston-Aug 2024.pdf	Complaint regarding deleted records from a college database was found not to fall within the OIGI's statutory mandate under the Intelligence Services Oversight Act 40 of	[4, 9]

						1994.	
23/06/2024	Metropolitan Police Service (MPS)	234565/24	Crime Management Service Case	Completed (Incident logged)	CNP-53345-24-0100-00	Record system incident logged regarding crime management service.	[4]
27/06/2024	Metropolitan Police Service (MPS)	01/FOI/24/038814	Freedom of Information (FOI) request	Pending (Unique number assigned)	FOI-15546-24-01000-00	Online submission for access integration via the Data Office Triage Team.	[4]
27/06/2024	Metropolitan Police Service (MPS)	MIP-319-24-0100-00	Intellectual Property (IP) Licence request	Pending	Customer Copy MIP-318-24-0100-00	Request for an IP license and query about using Met's intellectual property.	[4]
13/12/2023	Metropolitan Police Service (MPS) - Firearm Licensing Team	FA-36838-23-0100-01	Firearm Licensing Query	Completed (Contact made)	FA-36838-23-0100-01	Contact form submission to the firearm licensing team.	[4]
12/11/2023	Metropolitan Police Service (MPS)	2365983/23	Crime Reporting (Lost camera/ phone and cyber crime)	Pending (Clarification needed)	CNR-50615-23-0100-00	The MPS requested a check of the crime number as the system did not show an active case for the	[4]

						provided reference.	
11/05/2023	Department of Higher Education and Training (DHET)	2023/1226	Evaluation of foreign qualification for National Diploma	Rejected (Incomplete)	Application for Evaluation	Application for evaluation of Zaire (DRC) qualifications did not meet requirements regarding official external body certification.	[4]
29/06/2024	Private Security Industry Regulatory Authority (PSIRA)	App No: 6163228	Registration as Security Service Provider	Pending	Batch-383731	New application for PSIRA registration submitted; status marked as inactive pending document review.	[4]
09/07/2024	Metropolitan Police Service	MIP-350-24-0100-000	Request an intellectual property (IP) licence	Completed	6formsubmission-request-ip-licence-mip-350-24-0100-000.pdf	Form submission via Single Online Home service regarding use of the Met's intellectual property.	[10]
03/08/2025	Internet Archive	career-2-experience-	Digital Archive	Completed	Career 2, Experience	Digital upload of	[11]

		discovery-tshingombe-tshitadi	of Career Discovery		Discovery Tshingombe Tshitadi.pdf	engineering career expos and total experience discovery records.	
25/06/2024	Internet Archive	3letter-explanation-theoretical-assessment-learne-application-course-topics-textbook	Digital archive of engineering education documents	Completed	3letter explanation theoretical assessment learne application course topics textbook.docx	File uploaded to archive containing engineering assessment topics and experience letters.	[8]
24/06/2024	Quality Council for Trades and Occupations (QCTO)	2024-24-06-4401	Qualification-Programme Related Inquiry	Pending	memotech engineering trade college.docx	Acknowledge receipt of enquiry regarding engineering trade qualifications and results.	[12]
08/03/2024	Eskom	rdkqdn2udun4uze	Data drop-off for engineering files	Completed	eskom k87w.cvs	Files dropped off by Tshingombe Fiston at the Eskom data portal for student orientation purposes.	[8]
03/07/2024	Metropolitan Police Service	MIP-332-24-0100&00	Request on intellectual property IP	Completed	Online home report service form	Intellectual property and IP license request form	[13]

			license			submitted via online home report service.	
03/11/2022	St Peace College	2004007064381	College Admission and Examination	Completed	Admission permit and examination time table	Submission of admission permit and examination time table for student Tshingombe Tshitadi.	[14]
13/11/2019	SAQA	201911130002	Evaluation of foreign qualifications	Rejected	Final award degree diploma certificate	Application was non-compliant due to missing documents, incorrect payment, or lack of certification by official bodies in the country of origin.	[11, 14]
25/04/2024	Microsoft Learn	MSPR97002022	Microsoft Certification exam voucher	Completed	Voucher	Claiming of a free Microsoft Certification exam voucher earned from AI Skills Challenge.	[13]
20/02/2025	DHET / Engineering Staff	0000001	Gift Certificate /	Pending	Gift Certificate	Certificate entitling Tshingom	[13]

			Qualification entitlement			be Tshitadi to recognition for work experimental n/n diplomat.	
10/01/2025	Microsoft / Azure Training	Legal name: Tshingombe Tshitadi Fiston	Cloud engineering module completion	Completed	Introduction to Azure Load Balancer	Completion of training modules related to Azure Load Balancer and Traffic Manager.	[3, 6]
04/05/2023	National Skills Fund (NSF)	111999691949	Application for Engineering electrical assessment project	Completed (Submitted)	Application Template Disability RFP Phase 1.docx	Formal application submitted by St Peace College (Tshingombe Tshitadi) for engineering electrical N4-N6 assessment project.	[15]
20/10/2024	Internet Archive	1135821	Release results statement and finalize award diploma	Pending	Zendesk support ticket	Correspondence regarding a support ticket involving qualification records and academic transcripts	[7]

						.	
01/07/2024	Scottish Qualifications Authority (SQA)	8069641	Enquiry regarding Technical and Vocational Education and Training (TVET)	Completed	Not in source	Acknowledgment of interest in TVET services for a business in South Africa.	[10]
01/07/2024	SQA (questionpapper@sqa.org.uk)	GP6D 47 / GP6C 48	Group Award Specification for Electrical Engineering	Rejected	Not in source	Email regarding SQA Advanced Certificate/Diploma in Electrical Engineering was blocked by the recipient address.	[10]
02/07/2024	SQA	HT1L 48	SQA Advanced Unit Specification for Energy Technologies	Rejected	Not in source	Communication attempt regarding SCQF level 8 energy technologies unit specification was blocked.	[10]
22/09/2024	Metropolitan Police Service (MPS)	CNP-53345-24-0100-000	Online crime report submission regarding	Pending	Not in source	Crime reference number (2345654/24) was showing as non-	[16]

			financial transactions			existent; updates requested regarding the victim and named officer.	
28/02/2025	Internet Archive	Not in source	Thesis Experimental Digital Record	Completed	experimental2 career thesis tlantic office pc lab.pdf	Collection of documents including ISC2 Security Congress proposals and workplace experimental IP requests.	[16]
Not in source	DHET	COm18269001	Enquiry into exam irregularities	Pending	Portfolio of Evidence (PoE)	Enquiry regarding exam irregularities for NATED levels N3–N6 involving Tshingombe Tshitadi Fiston.	[11]
07/02/2025	Metropolitan Police Service (SSCL)	Not in source	NIE June Exam Registration	Pending	Expression of Interest	Expression of interest started but not fully submitted; required by 17/02/2025.	[17]
23/06/2024	Metropolitan Police Service	Vacancy: 17305	Development	Rejected	Not in source	Application for	[12]

			Operations Engineer - Band N			Counter Terrorism Policing HQ rejected based on eligibility criteria.	
23/06/2024	Metropolitan Police Service	Vacancy: 17418	Specialist Operations Recovery Manager	Rejected	Not in source	Candidate informed they are not eligible to progress with the application.	[12]
14/11/2019	SAQA	201911130002	Evaluation of Foreign Qualification	Completed	Not in source	Team evaluation of final award degree, diploma, and certificate submitted for screening.	[8]
17/04/2024	SAQA	Not in source	Foreign institutions enquiry regarding accreditation status	Completed	661fa039d9235.docx	SAQA provided links to DHET and databases for information on institution accreditation.	[8]
09/03/2023	DHET / SAQA	Not in source	Application for diploma t engineering	Pending	Statement	Formal application sent regarding electrical engineerin	[14]

			electrical award certificate			g awards.	
28/03/2024	Microsoft Support	2403110060003192	VSS, engineering data portal issue	Completed	Not in source	Support ticket closed by Microsoft due to lack of confirmation from user.	[13]
12/10/2024	Azure DevOps	Not in source	Organization setup	Completed	dev.azure.com/tshingombefiston0091	Registration and readiness of Azure DevOps organization for Tshingombe Fiston.	[13]
17/11/2024	National Vocational Combination	Not in source	Certificate of Appreciation	Completed	Certificate of Appreciation experimental job work	Awarded to Tshingombe Tshitadi for contributions to national trade examination engineering studies.	[13]
16/11/2024	ISC2	Candidate ID: 1907033	ISC2 Candidate status renewal	Pending	Not in source	Reminder to renew ISC2 Candidate status and pay annual dues by 2024-11-30.	[18, 19]

12/02/2024	DHET / QCTO / SAQA	2023/1226	Appeal for result release and diploma finalization	Pending	Not in source	Appeal regarding missing results for Engineering N1-N4 and N-Diploma due to alleged examination irregularities and suspension.	[3, 6]
30/11/2023	National Career Advice Portal (NCAP)	Not in source	Career Resilience Questionnaire Results	Completed	Questionnaire Results-3.pdf	Psychometric evaluation of Tshingombe Tshitadi's career resilience (concern, control, and curiosity).	[20]
29/04/2024	SAQA Authentication Services	Not in source	Foreign institutions enquiry service	Completed (Guidance provided)	foreigninstitutions@saqa.co.za email	Guidance provided regarding the status of St Peace College and NQF Act requirements for foreign awarding institutions.	[21]
01/07/2024	SQA (noreply@sqa.o	Not in source	Follow-up email	Rejected	Not in source	Email message	[10]

	rg.uk)		regarding TVET services			blocked by remote server with error code 550 5.4.1.	
04/07/2024	SQA	Not in source	Various Unit Specifications (Mathematics, Software, Maintenance)	Rejected	Not in source	Multiple email deliveries to SQA addresses were blocked by the remote server.	[10]
Not in source	SAQA	2020001305049	Foreign Qualification Evaluation	Rejected	Not in source	Non-compliant status for qualifications from the Democratic Republic of Congo.	[11]
Not in source	Metropolitan Police Service (UK)	Not in source	Freedom of Information (FOI) Request / IP License	Completed	IP License for research and publication	Records regarding IP license for research, FOI applications, and firearm license information.	[11]
Not in source	DHET	Not in source	Engineering Diploma Appeal	Pending	Engineering Diploma Appeal Statement to DHET	Appeal statement regarding result award for degree/diploma certificate	[22]

						in engineering studies.	
Not in source	Department of Higher Education and Training (DHET)	Not in source	Stationery and Marking Errors Report	Completed	Section A report	Reporting of marking center details and error descriptions for exams.	[11]
10/03/2023	QCTO Certification	Not in source	Issuance of statement of results	Rejected	Not in source	QCTO responded stating they do not issue statements of results.	[14]

[1] Flip Portofilio docket review rigth low complain again award diploma combination(3).docx
[2] Flip Portofilio docket review rigth low complain again award diploma combination(3).docx
[3] Record news reprinted statement(6).docx
[4] ACFrOgDBOFxk_wgs7s3kvfoaK_UHG2rfuh2H6Ksaq95nZz6GgH5cAjrZn4k-7PbxLUK0BbpXrbvr9ncW2NLqkHcpjjhKbTpa1-wqYXgNthG9dN7MmdMtgJJsrxcHw7vDXur2zrvRYNQ2_4emmBis1iBZafk8K34-rvLzUHMtBg==.pdf
[5] DATA RIGHTS 2024 (FOI) -S8 (INVALID REQUEST).pdf
[6] Record news reprinted statement(6).docx
[7] Flip Portofilio docket review rigth low complain again award diploma combination(2).docx
[8] 3letter explanation theoretical assessment learne application course topics textbook(2).docx
[9] Signed letter to Fiston-Aug 2024.pdf
[10] 6formsubmission-request-ip-licence-mip-350-24-0100-000.pdf
[11] Career 3 total experience discovery tshingombe tshitadi.docx microsoft.docx 4(2).pdf
[12] Incident logged on 2024, supplie letter tendered.docx
[13] Letter experimental job experience print batchellor 2.docx
[14] Career tshingombe tshitadi mentoring council trade qualification(3).docx
[15] Application Template Disability RFP Phase 1.docx
[16] experimental2 career thesis tlantic office pc lab(3).docx
[17] tshingombe tshitadi fiston bloc mark met career master.docx
[18] Report annual training candit security tshingombe.docx
[19] Report annual training candit security tshingombe.docx
[20] Questionnaire Results-3.pdf
[21] saqa qcto purpose transcript tshingombe(3).docx
[22] Engineering Diploma Appeal Statement to DHET

Based on 50 sources

Module Name	Functional Category	Technical Description	Tools and Technologies	Key Outcomes	Status (Inferred)	Source
Kfrm1	Information Management System (IMS)	Modular registration form capturing name, surname, ID, and cellphone. Uses binary flags (Kfrm1_Reg), coordinate validation (X, Y), and `cmdNext_Click` events to validate fields and manage navigation.	VBA, Visual Basic, MS Forms, Microsoft Access	Initial user registration, systemic step validation, and coordinate mapping.	Active	[1, 2, 6, 9, 10, 17, 22, Table Description]
Power System Analysis	Engineering Curriculum / Electrical Trade Theory	Analysis of load flow, short-circuit calculations (I=Ibase /Xpu), power factor correction (cosα), and impedance modeling (Z=R+jX or ZRLC =R2+(XL −XC)2). Includes G_ij and B_ij parameters.	VBA, Excel, PLC, ETAP, Power Flow Equations	Grid diagnostics, fault current determination, and system stability reports.	Active / Simulated	[1, 2, 3, 6, 9, 11, 12, 17, 22, Table Description]
Kfrm2	Information Management System (IMS)	Form for address and birthday capture. Validates text field inputs (txtAddress, txtBirthday) to ensure non-empty strings before triggering the next module.	VBA, Visual Basic, MS Forms	Personal data collection and demographic validation.	Active	[1-4]
Kfrm4	Biometric Security / Login	Credential check and password recovery simulation for static combinations (e.g., admin/1234). Manages login attempts and directs valid users to subsequent forms.	VBA, Visual Basic, MS Forms	User authentication and secure access control.	Active / Simulated	[1-4]
Kfrm6	Biometric Security	Simulation of biometric scan success using an integer flag (biometricFlag = 1) to validate identity and trigger status messages.	VBA, Visual Basic, Simulated Scan Logic	Biometric identity verification.	Simulated	[1-4]

PLC Command Builder	Automation & Control	Assembler for device control hex strings using IP addresses, register mapping, and read/write logic (5000 + net + plc + io + len + cpu).	VBA, Hex Assembly, PLC, I/O Mapping	Valid machine language command string generation and automated device control.	Active	[1, 2, 5, 6]
KfrmRobot	Robotics Engineering	Kinematic movement interface for X, Y, Z axes (validated ≥0); includes `ActivateServo` subroutine for positioning control.	VBA, PLC, Servo mechanisms, Visual Basic	Robotic movement control and coordinate validation.	Active / Simulated	[1-4]
UserForm3	Information Management System (IMS)	VBA-based interface (ClientHeight = 7476, ClientWidth = 19812) containing text fields for labels 1-12 and command buttons 1-16.	VBA, MS Forms, UserForm3tshingombe.frx	User data registration and interface for scientific calculations.	Active	[5, 7]
SCADA Switch Control	Industrial Control Systems	Toggle logic for SCADASwitch variable with message box feedback; monitors PortStatus in register &H1A using bitwise AND operations.	VBA, PLC, SCADA	Remote switch operation and management.	Active / Simulated	[3, 4]
Certificate Issuance	Digital Security	Generates 256-bit SHA256 hashes (64 hex characters) from product names using a CSHA256 object library for digital tracking.	VBA, CSHA256 Library	Unique digital fingerprinting and provenance.	Active	[3, 4, 8]
Crime Management System	Police Information Systems	Web-based architecture (OOA) for computerized management of crime records, featuring reporting and online communication.	XAMPP Server, MySQL, PHP, Edraw Max	Minimize manual data entry and secure crime records.	Active / Prototype	[9, 10]
ML06NP / ML6,c	Technical Instrumen	Precision weighing system with 1MB memory, AC	LCD, Lithium Backup, Memory	Precision measurem	Hardware	[1]

	tation	120V power, and VF-D LCD graphic display.	mapping	ent and labeling.	Specific ation	
Instrumen tation Lab	Open Lab Infrastruct ure	Infrastructure for PID tuning, sensor calibration, and control loop diagnostics.	Sensors, PID controllers	Laboratory practical readiness.	Active	[1]
Technical Drawing	Engineeri ng Curriculu m	Orthographic/isometric drawing and schematic interpretation modules.	CAD, Visual Basic	Technical documenta tion mastery.	Curricul um Integrat ed	[1]
Inventory System	Managem ent Informati on Systems	Relational database tables including Supplier, Category, Product, and Order Details.	Access Database, Excel	Stock tracking and reorder level monitoring .	Active	[2]
Vocationa l Trade Developm ent	Practical Trade Training	Hands-on trade training supported by office automation and script-driven documentation.	MS Word, Excel, Access, VBA	Job-ready skills and trade competenc ies.	Active	[5]
Computer Science	Theoretic al Computat ion	Implementation of programming algorithms, equations, proofs, and software engineering logic.	Java, Python, DOS	Innovation and logic rigor.	Active	[5]
AI & Expert Systems	Intelligent Automati on	Simulates expert reasoning and manages datasets using knowledge bases and inference engines.	NLP, Copilot, AI registration systems	Predictive power and decision-making.	Simulat ed / Active	[5]
Laser Unit	Technical Instrumen tation	Focused laser beam emitter that writes images onto the photoreceptor drum by discharging specific areas.	Laser optics, Electrostatics	Image creation on photorecep tor drum.	Operati onal	[5]
Controller Board	Technical Instrumen tation	Embedded processor system that interprets print commands and coordinates mechanical operations.	Embedded systems, Firmware	System coordinati on and command interpretati on.	Operati onal	[5]
WCL 2	Workman 's	Notice of Accident and Claim for Compensation	Paper / Digital Forms	Official workplace	Active	[11]

	Compensation	form used to initiate claims after workplace injury.		accident reporting.		
Petroleum Engineering	Engineering Curriculum	Covers reservoir rock properties (porosity, permeability) and fluid-rock interaction.	Drilling machines, Well logging tools	Estimation of STOOIP and drive mechanism identification.	Active	[11]
Low Voltage Circuit Breaker	Electrical Engineering	Design of electromechanical switches protecting against overloads using arc extinction.	MCB, MCCB, ACB, VCB	Short circuit and equipment protection.	Active	[11]
Signal Conditioning	Instrumentation Specification	Filtering interference from sensors and converting signals via ADC/DAC.	Operational Amplifiers, Resistor networks	Amplification and digital signal manipulation.	Active	[11]
IR Control	Electronic Control Systems	Decoding incoming infrared data packets to trigger relay switching.	IR Sensor, Arduino, Proteus	Wireless device control.	Simulated / Active	[11]
Individual Educational Plan	Information Management	Structured data form including student details, support teams, and academic needs.	Visual formats (PDF/Paper)	Documentation of educational goals.	Active	[11]
N2 Electrical Trade Theory	Electrical Trade Theory	Covers alternating current circuit theory, conductors, insulators, and cables per SANS 10142-1.	SANS 10142-1, SI units, Multimeter	Preparation for electrical apprenticeship.	Active	[12]
CCTV Installation	Technical Security Systems	System elements including back focus adjustment, lens types, and scene illumination.	Cameras, DVRs, Multiplexers	Cable testing and business startup capability.	In-service Training	[12]
Relay Trigger Logic	Engineering Diagnostics	Monitors current Z; if Magnitude > threshold, it triggers `ActivateRelay()` and logs the fault.	VBA, Sensors	System protection and fault logging.	Active	[3]
Modicon	Automati	Dual CPU configurations	Schneider	High	Active	[3]

M580 Redundancy	on Engineering	using Parallel Redundancy Protocol (PRP) for seamless failover.	Modicon M580, Ethernet	system availability.		
Control Register (1A)	Microcontroller Programming	Accesses address &H1A; performs bitwise AND check on register status for port activity.	VBA, Basic Stamp BS2 (Assembly)	Port status monitoring.	Active	[3]
Radio Technical Unit	Technical Instrumentation	Infrastructure fault analysis and preventative maintenance of radio high sites.	Communication Monitor, Signal Gen	Repairs and installation of radio equipment.	Active	[13]
Smart Metering System	Utility Management	Data flow modeling and remote reading architecture for loss reduction.	GPRS, GSM, PLC-RES-SM	Real-time consumption tracking.	In-progress	[13]
Metering System	Electrical Engineering	Processes energy profiles using integration of power over time ($E=\int P(t)dt$).	VBA, Excel	Energy profile generation (WA Code 3.2.1).	Active	[14]
Signal Preprocessing	Technical Instrumentation	Butterworth bandpass filtering, normalization, and rectification (Redresseur).	Python (scipy.signal)	Cleaned rectified signal for analysis.	Active	[14]
Multimeter Measurement	Technical Instrumentation	Logic for measuring AC/DC voltage, resistance, and continuity with 12-bit steps.	Digital Multimeter, Logic Probe, VBA	Circuit fault diagnosis.	Active	[4, 15, 16]
Binary Weighted DAC	Embedded Systems	Bit mapping from BIT3 to BIT0 using voltage equations for digital-to-analog conditioning.	Passive attenuator, Differential mirror	8-bit signal conditioning.	Active	[17]
CMPS03 Compass Interface	Technical Instrumentation	I2C protocol interface functions including SoftRevision and Bearing_Word.	I2C Protocol, Visual Basic	Retrieval of heading bearing data.	Active	[17]
Incident Collision Scenarios	Traffic Management	Uses derivatives to determine projectile motion, speeds, and impact angles.	Calculus Models	Collision cause determination and prevention.	Active	[9, 18]

Evidence Decay (Macro 35)	Forensic Investigations	Models biological residue degradation using exponential decay ($C(t)=C0\ e-\lambda t$).	Mathematical Simulation	Crime scene timeline reconstruction.	Simulated	[9]
Transformer Efficiency	Electrotechnics	Efficiency ratio calculation using (Pout +Pcore +Pcu P out)×100.	VBA, MS Word + Designer	Energy performance evaluation.	Simulated	[6]
Double Integral Engine	Forensic Modeling	Area-based evidence density simulation using polar coordinate integration (∑r2·r·dr·dθ).	VBA, Calculus Modules	Spread density analysis (e.g., blood/chemical).	Simulated	[6]
Industrial Electronics N4	Engineering Curriculum	Modules covering Network Theorems, AC Theory, and Electronic Power Control.	Ladder Logic, Oscilloscopes	Foundation for vocational training.	Active	[10]
Electrical Transformer	Engineering & Construction	Study of transformer parts and functions within the electrical curriculum.	Not in source	Qualification enhancement.	Active	[12]
Measuring Instrumentation	Engineering & Construction	Curriculum focusing on technical instrumentation and measurement techniques.	Not in source	Validation of measurement skills.	Active	[12]

[1] form kfrm 1to kfrm 40 total projection.pdf
[2] form1900001 integrator intelligence artificiel module career and traing trade technology power supplier register call processor modulator subject certificate license value energy syste compare..pdf
[3] form total project wizard kfrm1, to kfrm tota projection system.pdf
[4] form1900000 integrator intelligence artificiel module career and traing trade technology power supplier register call processor modulator subject certificate license value energy syste compare.pdf
[5] form total career integration , module class worsheet total 99230000.pdf education info code.pdf2.frm3 printer.pdf
[6] form 99230000.pdf
[7] FORM TSHINGOMBE..student account balance.pdf
[8] frm9991 proh licen.pdf
[9] form total excell project tshing.pdf
[10] form 992.pdf
[11] Gmail - Re_ Complete your Alison purchase with these Bank Transfer details, tshingombe.pdf
[12] Gmail - Re_ N engineering qualifications test JXL6JWJL3DR8E27GQWHE27.pdf

[13] EXCELL UserForm1TSHIN.frm cirriculum format.pdf excell dst cds experience insurence.pdf
[14] form 994.pdf
[15] EXCELL UserForm1TSHIN.frm FORM.pdf MATERIAL INSTALLER.pdf, multimeter.pdf
[16] EXCELL UserForm1TSHIN.frm multimetering measure.pdf
[17] form INTELL 90000 , FORM.pdf
[18] frm14 tshingombe policy assess poes circulum case low

Qualification Title/Recorded Trade ID	Course/Module Description	Level/ NQF Level	Credits	Industry Sector/Sub-sector	Technical Equipment/Tools	Research Goals/Task Requirements	Associated Institution /Company	Outcome/Competency Rating	Source
National Diploma in Electrical Engineering (SAQA ID: 111285 / 90674)	Comprehensive program (N1-N6) plus 18-24 months workplace experience. Covers Electrotechnics, Industrial Electronics, Engineering Science, and Mathematics.	NQF Level 6	360	Power Generation, Transmission and Distribution	Multimeter, PLC, Oscilloscopes, Transformers, AC/DC machines, SCADA, Signal Generator, Soldering tools	Complete theoretical certificates and practical work integrated learning (WIL); design and repair electrical systems; solve equations for circuit analysis.	St Peace College / City Power / Eskom / DHET / SAQA	Accredited by SAQA; Requires Trade Test for Professional Artisan Status; 40% min pass per subject.	[1-11]
Master of Engineering (MSEE) / Electrical Engineering Master	Advanced research in power systems, renewable energy, VLSI design, and AI-driven optimizati	NQF Level 9 / Level 7-9	Not in source	Power Systems and Renewable Energy	AI-driven sensors, Tesla meter, Hall sensor, high-current power supply,	Investigate sustainable electrification; create 15,000-word doctoral dissertation; publish	Atlantic International University (AIU) / St Peace College	100% grade achievement; Professional Engineer recognition; Thesis Accepted.	[5, 6, 10-15]

	on for microgrids. Includes electrostatic and electrodynamics studies.				CAD tools, simulation software	academic papers; investigate machine learning in demand response.			
Doctorate in Electrical Engineering / Doctor of Technology (ID 78780)	Advanced specialist research focusing on power systems, electrical infrastructure, and sustainability.	NQF Level 10	240	Academic / Research	Not in source	Create 15,000-word dissertation; contribute new knowledge to electrical/ electronics fields; publish academic papers.	Atlantic International University (AIU) / Cape Peninsula University of Technology / SAQA	Research proposal requirements defined; HEQSF compliant.	[5, 12]
GENIAC / SAIMS	Operation GENIAC focusing on military-grade logic and digitizing public infrastructure assets.	NQF Level 6-9	Not in source	Military Combat Engineering / AI	Tactical engineering systems, 75MHz clock speed hardware, 64KB memory	Automating public infrastructure; Budget R40M to R50B; R600M investment.	SANDF / SAPS / DHET	MIL-STD / POPIA compliant	[5]
Further Education and Training Certificate: Electrical Engineering (ID 63889)	Preparation to operate as an Electrician: plan, install, test, commission, maintain and repair	NQF Level 4	130	Construction / Chemical / Mining	Hand and power tools, Rotating Electrical Machinery, Low Voltage Protection systems	Fault find and repair electrical control systems and electrical installations.	SAQA / Eskom / Railways	Competent within curriculum standards.	[9]

	electrical equipment and control systems.								
Electrician (OFO 671101) / Electrician (Shift Worker)	Trade qualification and vacancy for daily maintenance, repair, and installation of electrical systems at all voltage levels.	NQF Level 4 / Task Grade 9	Not in source	Power Utility / Distribution	Test equipment, instruments, hand tools, conduit, raceways, cables.	Perform network operating; diagnose equipment malfunctions; respond to emergency call outs; isolations and insulation testing.	City Power Johannesburg / QCTO / MERSETA	Trade Test Certificate / License to Practice required.	[1-3, 16]
Dalkeith-Lutz 132kV/88kV Cable Project	Construction of double circuit 200MVA 88kV cable supply using single core Aluminium XLPE cables.	Not in source	Not in source	Electrical Infrastructure / Utilities	2500mm2 Aluminium XLPE cables, winch, directional drilling equipment, OTDR	Construct 4800m route; supply and install fencing; achieve ZVS (Zero Voltage Switching); budget not exceeding R40M.	City Power Johannesburg / Eskom	Meets IEC 60071-1&2; SANS 60840 factory and site acceptance tests.	[1.3, 1.4, 2, 2.2 8, 4.1 5, 14]
SQA Advanced Diploma in Electrical Engineering	Advanced units including Synchronous Machines, Electrical Motor Drive Systems, and High-Level	SCQF Level 8	30 unit credits	Power Generation / Advanced Engineering	High-level engineering software, CAD tools, Switchgear, Synchronous Machines	Build advanced technical expertise and leadership competencies for professional engineering roles.	Scottish Qualifications Authority (SQA)	Graded units via logbooks and portfolios.	[8]

	Engineering Software.				.				
SQA Advanced Certificate in Electrical Engineering (GP6D47)	Modules include Electrical Principles, Three Phase Induction Motors, Power Electronics, PLC, and Control Systems.	SCQF Level 7	96 SCQF credits	Industrial Automation	Programmable Logic Controllers (PLC), micro-controller systems, PC with I/O ports.	Provide practical skills meeting employer needs for low voltage installations and control systems.	Scottish Qualifications Authority (SQA)	2-hour written paper and 2-hour laboratory assignment.	[8]
Schneider Home Certification	Training for home energy management systems, inverters, and backup controllers.	Professional Certification	3 NABCEP CEU	Renewable Energy	Schneider Inverter, Boost, Pulse Backup Controller, Energy Monitor.	Installation and commissioning using eSetup App; 80% passing score required on test.	Schneider Electric / Home and Distribution Academy	Certified Installer status.	[3]
Master Electrician	High voltage and heavy current electrical work in challenging environments.	NQF Level 5	Not in source	Power Utility / Heavy Current	High voltage equipment	Determining documentation for Department of Labour registration.	Department of Labour (DOL)	Qualified to work with higher voltages.	[2]
Masters in Artificial General Intelligence and	Topics include AGI, human cognition, ethics, and economic	NQF Level 9	Not in source	Technology / Social Sciences	AI Models, Computational Frameworks.	Thesis and publication on human-machine collaboration.	Atlantic International University (AIU)	Degree honor.	[3]

Social Sciences	implications.								
NSF CAREER Proposal / S.E.E.E. I.S.U.A.	Supply of electricity to 10,000 rural households using sustainable multi-technology (SHS, mini-hydro).	Not in source	Not in source	Renewable Energy / Rural Development	50-watt Solar Home Systems (SHS), mini-hydro systems, plasma dynamic generators.	Develop sustainable grid/off-grid electrification; budget not to exceed R550,000.00.	National Skills Fund (NSF) / National Research Foundation (NRF)	Proposal declined for eligibility (I-Corps); Provisional project topic.	[6, 7, 10]
N4 Electrical Engineering (Research Plan)	Framework for circular assessments and education technology implementation.	NQF 4 / Level 6	Not in source	Utilities / Energy Supply	Electrical panels, meters, circuits, IT systems, robots.	Innovation in energy systems for City Power/Eskom; resolve industrial maintenance problems.	City Power / Eskom / St Peace College	Competency via portfolio-based assessments.	[8]
National Certificate: Electrical Engineering (ID 72071)	Design and install electrical wire ways.	NQF Level 3	8	Electrical Engineering	UniTrain and InsTrain modular learning systems	Hands-on experimentation in electronics, automation, and renewable energy.	SAQA / Lucas-Nülle	Passed/Accredited	[10, 17]
National Certificate: Electrical Engineering (ID 63790)	Install, test, and maintain electrical equipment in hazardous locations; commission DC/AC machines.	NQF Level 3	10	Electrical Engineering	DC/AC machines, control gear, multimeter.	Technical commissioning of machines in hazardous environments.	SAQA	Passed	[18]

Electrical Trade Theory N3	Core subject for electrician apprentices: AC/DC circuits, earthing, and safety regulations.	NQF Level 3	Not in source	Construction / Power Utilities	Wiring kits, distribution boards, circuit breakers.	Master SANS 10142 wiring codes; application of TPM and 5S System.	City Power / Eskom / St Peace College	SAQA ID 67491; Nov 2021 investigation for irregularities.	[1, 6, 7, 10]
N2 Electrical Engineering	Theoretical knowledge for electrical contracting or power utility environments.	NQF Level 2 / 4	Not in source	Power Utility / Distribution	Multimeter, insulation leakage tester, phase rotation tester.	Equip students for learnerships; cover AC theory, cables, and transformers.	DHET / Umalusi / City Power	Min 40% trimester mark required for final exam.	[1, 2, 16]
PLC & Robotic Control Logic / Modicon Configuration	Programming and configuring Modicon M340 automation platforms and process machines.	Not in source	Not in source	Industrial Automation	Modicon M340 PLC, EcoStruxure, VSDs, motor circuit breakers.	Translating physical wiring logic into algorithms; 30kA SCCR; 1200 note/Min processing.	Schneider Electric / Age Technologies	Technical Expert / Automation Specialist.	[5-7, 10, 12, 19]
NIMI Curriculum: Electrician / 4th Semester	Trade Practical syllabus: Wiring, Soldering, Control Panels, AC/DC Motor Drives, and UPS.	NSQF Level 5	Not in source	Vocational Training	Soldering tools, Function Generator, CRO, Potentiometers.	Complete 48 practical exercises (525 Hrs); troubleshooting inverters and repairing circuit breakers.	National Instructional Media Institute (NIMI)	Assessable; Learning outcomes verified.	[9, 17]
DTS	Real-time	Not in	Not	Telecom /	Sensing	Monitor	City Power	Max Splice	[16

(Distributed Temperature Sensing) System	thermal monitoring of high voltage cables using fiber optic sensors.	source	in source	Power Infrastructure	optoelectronics, 48-core non-metallic fiber, OTDR.	temperature over cable route; feed data to SCADA; predict ambient influence.	Telecom Division	Loss ≤ 0.1 dB; Mean Splice Loss ≤ 0.075 dB.	]
Smart Power Metering Module	Three-phase smart power measurement system utilizing GPRS for remote communication.	NQF Level 6	Not in source	Urban Energy Management	GPRS Module, 3-Phase AC Static Watt-Hour Smart Meter.	Billing data processing; 240 VAC +20% voltage; 0-60A range.	Madinda Utilities / City Power	Class 0.5 (0.5%) Accuracy; IEC 62056 compliant.	[5]
Matrix-UPS Module	Line interactive uninterruptible power supply for protected computer loads.	Not in source	Not in source	Power Protection	UPS System, Power fault detection filter.	Achieve 93% efficiency at 100% load; Overload capacity 10 sec at 200%.	Eaton Power Advantage	Efficiency rating 93%; Compliance with UL 1778.	[5]
N1 Electrical Engineering / SAQA 67109	Foundational competency in engineering fundamentals, math, and physics.	NQF Level 1 / 2	Not in source	Industrial Engineering	Hand tools, soldering iron, basic meters.	Learn math, science, and drawing for engineering trades.	DHET / Umalusi	Accredited by Umalusi; Required for DOL registration.	[2, 16]
Transformer Board Experiment	Verification of the Transformation ratio and determinat	Not in source	Not in source	Power Engineering Lab	Transformer Board, Auto Transformer,	Determine no-load characteristics; measure load	Cleveland State University / Lucas-Nülle	Completed to laboratory manual standards.	[1]

	ion of Efficiency.				Ammeters, Voltmeters, Wattmeters.	current and secondary voltage.			
Advanced Wireless Communications	Wi-Fi 6 (802.11ax) certification and satellite link budgets.	Not in source	Not in source	Telecommunications	Cisco RF ASIC, mGig (Multi-gigabit Ethernet).	Network planning and coverage optimization via 5G integration.	Cisco / BlockMark Registry	Certified	[10]
ZE3301 Didactic Equipment	High performance basic electrotechnical training.	Not in source	Not in source	Education Technology	Digital display instruments, unit circuit modules.	Practical training for Ohm's Law, Kirchhoff's Law, and Transformer characteristics.	Not in source	Passed/Verified via 32 listed experiments.	[2]
Advanced Diploma in Basics of Electrical Technology	Explores circuit analysis, resistor types, and shock prevention.	NQF 7 (Inferred)	Not in source	Professional Development	Circuit analysis tools, resistors.	Requires 15-20 hours to complete.	Alison Learning	Certificate of completion.	[3]
National Technical Certificate N3	Electrical Engineering light current / telecommunications.	NQF Level 3	Not in source	Technology Management	Communication Monitor, Signal Generator, Oscilloscope.	Radio infrastructure installations and maintenance at Radio High Sites.	SAPS Radio Technical Unit	Trade Test in field of post required.	[2]
Masters	Integration	NQF	Not	Logistics	Blockcha	Enhance	Atlantic	Curriculum	[12

in Supply Chain Management	of software engineering with supply chain and traceability systems.	8 (Inferred)	in source		in, IoT devices, software tools.	supply chain efficiency through software solutions.	International University (AIU)	outline developed.	]
Not in source	Implementation Framework Policy for College and School Engineering.	Not in source	Not in source	Education / Project Management	Log books, databases, panel systems.	Audit curriculum & policy (Budget ZAR 100,000) and study assessment (Budget ZAR 100,000).	Eskom Expo / City Power	Research Proposal Complete	[4, 20]
Not in source	PIR-Triggered Mains Switch Construction	Not in source	Not in source	Security Systems / Electronics	PIR detector, 20A relay, SR flip-flop, binary counter.	Design a motion-activated switch for a 230V AC outlet with 10A load limit.	Tshingombe Tshitadi Engineering	Functional prototype completed.	[20]
Not in source	Audio Converter Prototype & Lab Testing	Not in source	Not in source	Telecommunications	Toroidal core transformer, resistors, 100nf capacitor.	Design a circuit to convert and couple audio signals (0.5V, 75ohm) with isolation.	Not in source	Validated for signals up to 50MHz.	[20]

[1] 795797_Prospect student alu research 2 assessement thesisi experimental ,,.docx
[2] 398987_Prospect student alu research 2 assessement thesisi experimental ,,.docx
[3] 252678_thesi project book , final engineerin tshingombe , time table allocation job cost.docx
[4] new 2career engineering.2.pdf
[5] new 5career engineering5.pdf
[6] 359173_Proposal of thesis content 2 final research(2).docx
[7] new 3career engineering3(1).pdf
[8] 824769_Career center scie bono tshingombe faciltator note.docx

[9] 574174_zaire tvet practical theory St peace College.docx
[10] new 4career engineering4.pdf
[11] Proposal of thesis content. 1-1.pdf
[12] 176245_course ciriculum total course thesis alumine(1)(1).docx
[13] 454623_thesis course energie rural ..(1).docx
[14] 835174_thesis course energie rural ...docx
[15] 896176_1alu course assessent tshingombe 23 engineering master.docx
[16] 398481_portofolio career ,Research college engineering career joint gov compagny department 234(1).docx
[17] The_Labyrinth_to_the_Blueprint-1.pdf
[18] Unified_Mastery_Engine.pdf
[19] Proposal of thesis content 2 final research(4).docx

Based on 38 sources

Qualification or Project Name	Domain / Subject Area	Awarding Institution or Platform	Status / Level	Key Competencies or Results	Associated Technology or Standards	Source
National N Diploma in Electrical Engineering	Electrical Engineering	St Peace College / DHET / SAQA / QCTO	NQF Level 6	Mastery of N1–N6 subjects including Mathematics, Engineering Science, Electrical Trade Theory, Industrial Electronics, Electrotechnics, and Plant Operation; requires 24 months practical experience.	NATED Framework, SAQA ID 111285 / 90674 / 66994	[1-3]
Microsoft Learn Portfolio	AI, Cloud, and Data Science	Microsoft Learn	Level 17 (69% progress)	1,483,625 XP earned across 943 badges; competencies in AI Foundations, GitHub Admin, and Azure ML.	Azure ML, GitHub, Microsoft Copilot	[4]
Information	Software	Tshingombe	Prototype / In	Modular	Visual Basic	[3-5]

Management System (IMS) Modular Framework	Development / Digital Security	Tshitadi Fiston (Inventor)	Progress	architecture (Kfrm1–Kfrm6); event-driven VB logic, biometric validation, secure credential handling, binary status tracking, and SHA-256 hash integrity.	(VB), VBA, Biometric Security, SHA-256	
Web-Based Crime Management System	Information Systems / Software Development	Qeios	Published (Preprint)	Development of client-server architecture for online crime reporting, retrieval, and automated record management for Samara City Main Police Station.	PHP, HTML, JavaScript, CSS, MySQL, XAMPP	[4, 6]
Industrial Automation & PLC Training	Electrical Engineering / Automation	Schneider Electric	14.15 Hours Completed	Competency in PLC configuration (140+ modules), EcoStruxure Power energy modeling, kinematic calculation, and Modicon switch management.	EcoStruxure, Altivar Machine, Modicon Switches	[3]
Energy Mgmt Compliance / Smart Panel	Energy Management	Schneider Electric	Work Expert / Validated	Logigram-validated wiring rules for motor management; mitigating risks such as	Compact NSX, MCCBs, TeSys T LTMR	[1]

				"plunger-only stop" via MCCB and LTMR configuration.		
Discover Data Concepts and Implement Solutions with Microsoft Fabric	Data Science / Cloud Computing	Microsoft	Verified / Active	Skills in data discovery, classification, and protection; implementation of data warehouses and Microsoft Fabric workflows.	Microsoft Fabric, Azure	[1, 3]
ISO 37301:2021 Compliance Management System	Compliance Management	Alison	91% (Certified)	Comprehensive understanding of compliance management principles and international standards.	ISO 37301:2021	[3]
Implementation Framework Policy for TVET Assessment	Policy Research / TVET Reform	Submitted to Eskom Expo for Young Scientists	Research Proposal	Architected a concrete framework to bridge the gap between N1–N6 theoretical education and real-world industrial operational needs.	N1–N6 entry model, Industry job requirements	[3]
SASSETA Assessor & Moderator Certification	Educational Assessment & Policy	SASSETA / PSIRA	Certified	Certified competence in assessment and quality assurance for Engineering Fabrication and Security Management Electronics.	SAQA Unit Standards, NQF Framework	[3]
Fault Current Analysis	Electrical Engineering	Not in source	NQF Level 6	Estimation of fault current	ANSI/IEEE C37.13.2-	[4]

Module				and impedance calculations aligned with ANSI/IEEE standards.	2015, VBA Equations	
Master Education Technology Rural Implementation Framework	Policy Research / EdTech	Atlantic International University (AIU)	Submitted	Design of frameworks to solve socio-technical challenges in rural electrification and technical training.	VBA-powered Credential Engine	[1]
NSF I-Corps Application	Technical Innovation	National Science Foundation (NSF)	Rejected / Declined	AI-based predictive maintenance in industrial systems; application declined due to institutional accreditation hurdles.	Machine Learning, Smart Grid, I-Corps Standards	[1, 3]
Diploma in Robotics	Robotics & Automation	Alison	Completed	Kinematic movement (X, Y, Z axes), servo mechanisms, and PLC command logic.	PLC, Servo Mechanisms, VBA Logic	[1]
Cyber Essentials Plus	Cybersecurity	BlockMark Registry	Verified	Compliance with UK cybersecurity standards; active certifications tracked via registry.	UK Cybersecurity Standards	[1]
Digital Logic and Electronics Module	Digital Logic / Electronics	Not in source	NQF Level 5	Register mapping, derivation of register selects, and truth table	Boolean Logic, VBA Logic Engine, Truth Tables	[4]

				generation for digital logic circuits.		
Circuit Design Strategy Project	Electronic Engineering	Not in source	NQF Level 4–6	Integration of PCB ground planning, logic gate control, and battery system efficiency calculations.	SANS 10142, ISO/BIS Compliance	[4]
Senior Specialist: Digital Fraud Investigations	Tax Crime & Intelligence	South African Revenue Service (SARS)	Acknowledged	Digital forensics, evidence mapping, and development of fraud detection logigrams.	Digital Forensics, Logigram Workflows	[4]
IT Asset Management Administrator Application	Governance / BSTD	South African Reserve Bank (SARB)	Active	Alignment with compliance automation and asset lifecycle tracking frameworks.	VBA Frameworks, Compliance Scoring	[4]
Engineering Science N3	Foundational Engineering	St Peace College	NQF Level 4	Mastery of Engineering Science, Industrial Electronics, and Diesel Trade Theory.	Engineering Drawing standards	[4]
Schneider Home Certification	Electrical Automation	Schneider Electric	In Progress / Pending	Commissioning with Smart Panel Setup, load control, and installer support for residential energy systems.	EcoStruxure, Smart Panel, Smart Grid	[4]
DOL Starter Circuit Modeling	Control Systems	Not in source	Audit Algorithm	Translation of physical wiring logic into an auditable algorithm; risk	Kirchhoff's Laws, VBA Algorigram	[1]

				flagging for stop configurations.		
Labour Law Training	Legal Compliance	SASSETA / CCMA	Workplace Dispute Resolution	Tracking and linking evidence to CCMA hearings; reference case archives for legal precedent.	MERSETA, Compliance log	[1]
Career project implementation framework design	Research / Education Technology	F1000Research	Rejected	Systemic non-recognition encountered during submission process for peer review.	F1000Research Submission Standards	[3]

[1] new 3career engineering3.pdf
[2] new 2career engineering.2.pdf
[3] new career engineering.pdf
[4] UserForm 90004444 career totand and trade portoloio.frm1.pdf
[5] UserForm total career outcom 90000333 , completed tota.frm to trade.frmt5.pdf
[

Credential Name	Issuing Institution	Field of Study	Level/Standard	Status/Achievement	Key Competencies	Source
National N Diploma: Engineering Studies (Electrical Engineering)	St. Peace College / DHET	Electrical and Industrial Engineering	NQF Level 6, SAQA ID 66994 / 90674	Awarded (360 Credits)	Comprehensive mastery of electrical infrastructure, industrial automation, and design. Includes Mathematics (N1-N6), Engineering Science, Electrical Trade Theory, Industrial Electronics,	[1], [2], [3]

					Electrotechnics, Power Machines, Control Systems, and Installation Rules.	
Thesis: Master Education Technology Rural Implementation Framework	Atlantic International University	Education Technology	Master of Eng. Systems (NQF 9)	Published/Accepted (IJETR3156)	Development of an educational technology rural implementation framework, modular education frameworks, audit-ready data structures, and curriculum assessment.	[1], [2]
Registered Professional Engineer	ECSA / Home Affairs	Engineering Systems	NQF 8 (Inferred)	Final Cost: R1,000	CPD activities, compliance with professional standards, and high-voltage maintenance.	[2]
National Certificate: Electrical Engineering: Mining	SAQA	Mining / Electrical Engineering	NQF Level 3, SAQA ID 72071	Certified (133 Credits)	Install, test, and maintain low-voltage electrical equipment; troubleshoot and repair electrical control systems; oral/signed communication.	[3]

National Certificate: N3 Engineering Studies	SAQA	Electrical Engineering	SAQA ID 67491	Certified	Electrical Trade Theory, Engineering Science, and Mathematics.	[3]
Industrial Automation & PLC Training	Schneider Electric	Industrial Automation	Corporate Certification	Completed (140+ courses)	PLC configuration, EcoStruxure Power, energy modeling and verification, Drives fundamentals, Modicon Switches, and Altivar Machine Professional.	[3]
Altivar Machine Professional	Schneider Electric	Industrial Automation	Advanced Technical	Active	Mounting, cabling, PID control, speed ramps, and error diagnostics for ATV320/340 drives.	[1]
Energy Mgmt Compliance	Schneider Electric	Industrial Automation	Not in source	Final Cost: R10,000	Smart Panel, Power products and systems (Compact NSX, MCCBs), and Logigram-validated wiring.	[2]
ASHE: Energy Manager	Schneider Electric	Energy Management	Professional Certificate	In Progress	Energy auditing, retro-	[1]

					commissioning, power factor analysis, and IPMVP protocols.	
Certificate in Electrical Safety	Sci-Bono Discovery Centre	Electrical Engineering	SAQA/NQF Level 4, WA Code: EA2	Final Cost: R300	Circuit design & analysis, wiring premises, and installing distribution boards.	[2]
Introduction to Data Engineering on Azure	Microsoft	Data Engineering	Verified Credential	Completed	Data concepts, Microsoft Fabric, Azure Synapse, and Microsoft Defender for Endpoint.	[2], [3]
AI Fluency Path	Microsoft Learn	Artificial Intelligence	Digital Skill Trophy	Done (Trophy)	Generative AI, prompt design, responsible AI ethics, and Azure AI Foundry SDK deployment.	[1]
GitHub Fundamentals	Microsoft / GitHub	DevOps	Digital Skill Badge	In Progress (84%)	Repository management, access control, marketplace integrations, and versioning hygiene.	[1]
Web-Based Crime Management System	Qeios Peer-approved Preprints Archive	Computer Science / Information Systems	Research Preprint	Published (Preprint)	Design of automated online reporting	[1]

					systems, client-server architecture, and database management.	
Paper "IJETR3147 "	Engineering Research Publication	Electrical Engineering	Peer-reviewed Article	Accepted (Feb 18, 2025)	Documentation of persistent intellectual output in engineering research.	[3]
Assessor / Moderator Certificate	SASSETA / PSIRA	Education & Security Compliance	Registered ID: TIRCG00091061010	Registered	Engineering Fabrication, Security Management Electronics Engineering, assessment moderation, and conducting pre- and post-assessment moderation.	[3]
Diploma in Teaching Skills For Educators	Alison	Education & Pedagogy	CPD Accredited	Completed	Constructivism, Behaviourism, Motivation Theory, Instructional Design, and Taxonomies of Learning.	[2]
ISO 37301:2021 Principle of Compliance Management System	Alison	Compliance Management	Online Verified Skill Acquisition	Certified (91% score)	Compliance management systems, regulatory adherence, and auditing principles.	[3]
Google Classroom	Google	Educational	Certificate of Completion	Completed (Oct 26, 2023)	Digital classroom	[4]

Fundamentals		Technology			management and pedagogical integration of LMS tools.	
Cyber Essentials Plus	BlockMark Registry	Cybersecurity	UK Cybersecurity Standards	Active (Valid to 2025-12-13)	Demonstrated compliance with cybersecurity standards and digital security competence.	[2]
MIP-630-24-0100-000 IP Registration	Department of Science and Innovation (DSI)	Intellectual Property / R&D	Government Registration	Submitted (14 Feb)	IP licensing workflows, R&D tax incentive compliance, and regulatory documentation.	[1]
Thuthuka PhD Track Grant	National Research Foundation (NRF)	Research Development	Grant Application	In Progress (April 2025)	Advanced academic research targeting ICT, Health, Energy, and Development Studies.	[3]
NRF Grant Application: secondary research	National Research Foundation (NRF)	Electrical Engineering & Education	Application Ref: PSTD250411310291	Application In Progress	Nanostructured materials, additive manufacturing, and information and library science.	[2]
NSF Career Proposal: Rural Electrification	National Science Foundation (NSF)	Energy Infrastructure	I-Corps Program	Declined (Eligibility Requirements)	50-watt Solar Home Systems (SHS), hybrid grid/off-grid model, and	[2], [3]

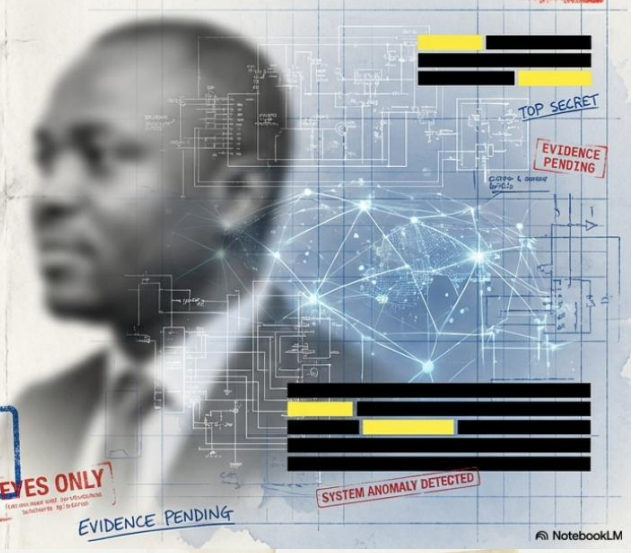
					sustainable energy access.	
Career project implementation framework design	F1000Research	Educational Policy / Research	Research Article Submission	Rejected (11 Apr 2025)	Structuring audit-ready frameworks for career education pathways.	[3]
Trailblazer Superbadge - Data Cloud	GitHub / Azure DevOps / Salesforce	Software Development	Not in source	Final Cost: $60	CI/CD Pipeline Subscription, data visualization, and business intelligence competency.	[2]
Labour Law Training	SASSETA / CCMA	Legal & Labour Compliance	Not in source	Final Cost: R800	Workplace Dispute Resolution and MERSETA + Home Affairs compliance log.	[2]
Diploma in Electrical Studies	Alison	Electrical Engineering	Online Diploma	12% Progress	Theoretical foundations of electrical principles.	[3]
Advanced Diploma of Electrical Technology and Circuit Analysis	Alison	Electrical Technology	Online Diploma	3% Progress	Circuit analysis and advanced electrical components.	[3]

[1] UserForm 90004444 career totand and trade portoloio.frm1.pdf
[2] new 3career engineering3.pdf
[3] new career engineering.pdf
[4] tshingombe tshitadi engineering and education technology engineering.pdf

THE SHINGBE ENTERPRISE REVIEW
A CASE STUDY IN INDUSTRY 4.0 AMBITION

Confidential Audit Report | Analysis of the 'St. Peace College' Ecosystem

This report synthesizes a [redacted] collection of financial data, technical blueprints, and academic accreditation filings. It investigates an entity an entity attempting to build a massive, self-sustaining ecosystem bridging high-stakes commerce, national education, and advanced engineering.



SUBJECT: Fiston Shingbe / Tshingombe Tshitadi
STATUS: DRAFT / UNDER INVESTIGATION

EYES ONLY

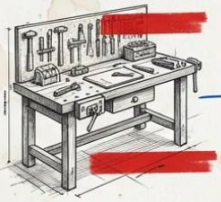
NotebookLM

CONFIDENTIAL

THE INDUSTRY MANDATE: PRECISION, SAFETY, & CONNECTIVITY

THE SHIFT

From the "Classic Workshop Bench" to the "Smart Industrial Revolution". We are moving from hand-twisted wires to Cyber-Physical Systems. The modern standard requires managing self-healing, AI-powered smart grids.



THE TOOLKIT

1. THE DIGITAL:
Cloud computing, Blockchain supply chains, Neural Networks.

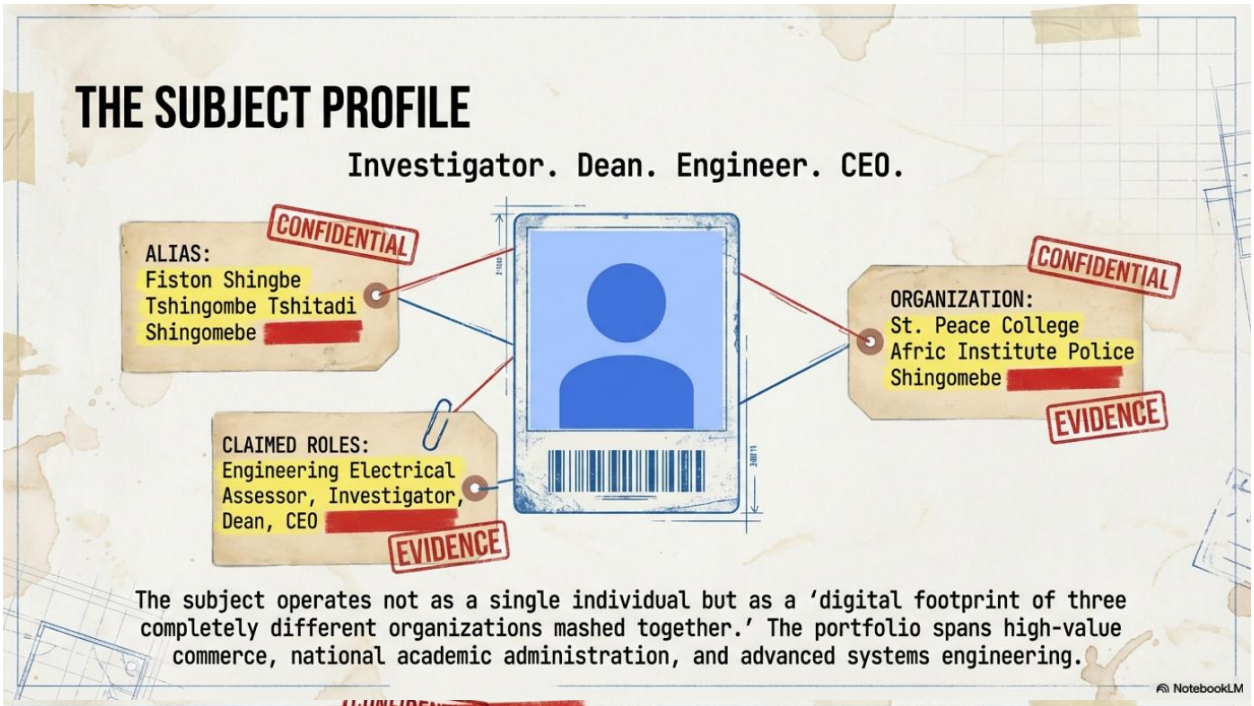
2. THE PHYSICAL:
"Dead smooth files" for precision. "Prussian blue" for marking.

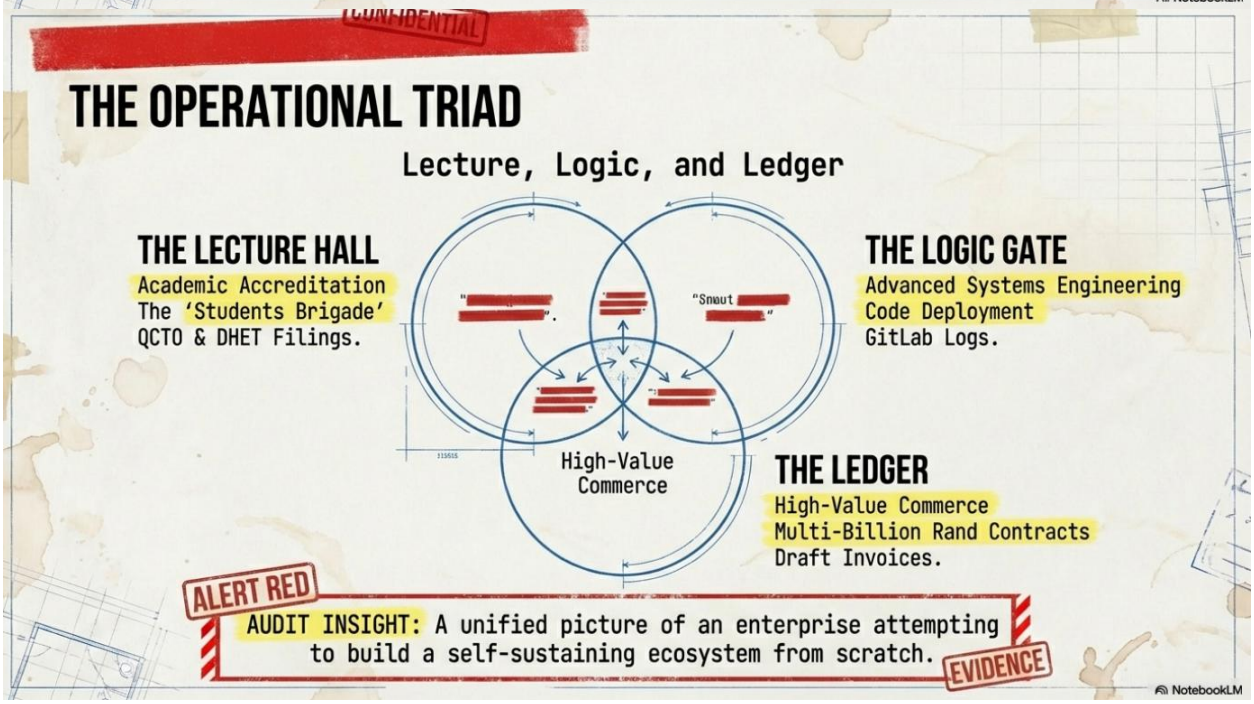
3. THE SAFETY:
"Safety Always" is the foundation. A firewall is now as critical as a fire extinguisher.

QUOTE: "A network bug can be just as dangerous as a frayed wire."
— Source: The Evolving Technician

ALERT: CYBER RISK

NotebookLM

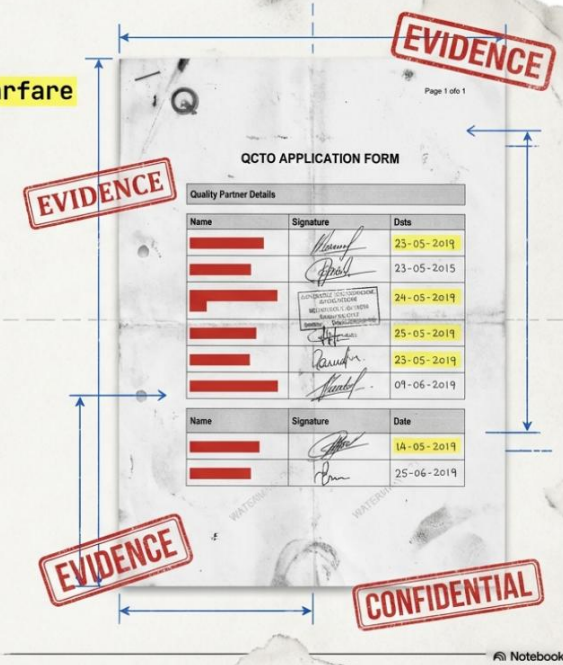

THE SUBJECT PROFILE
Investigator. Dean. Engineer. CEO.
CONFIDENTIAL
ALIAS:
Fiston Shingbe
Tshingombe Tshitadi
Shingomebe [redacted]
CONFIDENTIAL
ORGANIZATION:
St. Peace College
Afric Institute Police
Shingomebe [redacted]
EVIDENCE
CLAIMED ROLES:
Engineering Electrical
Assessor, Investigator,
Dean, CEO [redacted]
EVIDENCE
The subject operates not as a single individual but as a 'digital footprint of three completely different organizations mashed together.' The portfolio spans high-value commerce, national academic administration, and advanced systems engineering.
NotebookLM


CONFIDENTIAL
THE OPERATIONAL TRIAD
Lecture, Logic, and Ledger
THE LECTURE HALL
Academic Accreditation
The 'Students Brigade'
QCTO & DHET Filings.
THE LOGIC GATE
Advanced Systems Engineering
Code Deployment
GitLab Logs.
High-Value Commerce
THE LEDGER
High-Value Commerce
Multi-Billion Rand Contracts
Draft Invoices.
ALERT RED
AUDIT INSIGHT: A unified picture of an enterprise attempting to build a self-sustaining ecosystem from scratch.
EVIDENCE
NotebookLM

DOMAIN I: THE ACADEMY

The "Students Brigade" and Bureaucratic Warfare [redacted]

- **THE HIERARCHY:** Parametric organization broken down by faculty (Policing, Engineering, Business) with student ranks Level 1-12.
- **THE BUREAUCRACY:** Submissions to SAQA, QCTO, and DHET involving "Certified Copies," "Sworn Translations," and alignment with the National Development Plan.
- **THE AMBITION:** Creating new NQF Level 5-7 qualifications from scrath NQF Level 5-7 qualifications from scratch, including "Engineering Panel Wiring" and "Police Academic". [redacted]



NotebookLM

DOMAIN II: THE LOGIC GATE

Hard Engineering Meets Software

CONFIDENTIAL

THE HARDWARE:

Compliance with SANS 1042 safety standards. Calculations for voltage regulation on 22kV overhead lines.

THE LOGIC:

Complex Boolean equations for motor starters: "K start = F1+so(S1+km1).k d". [redacted]

THE SOFTWARE:

GitLab activity (User: Kanga 5) for a CI/CD pipeline environment. [redacted]

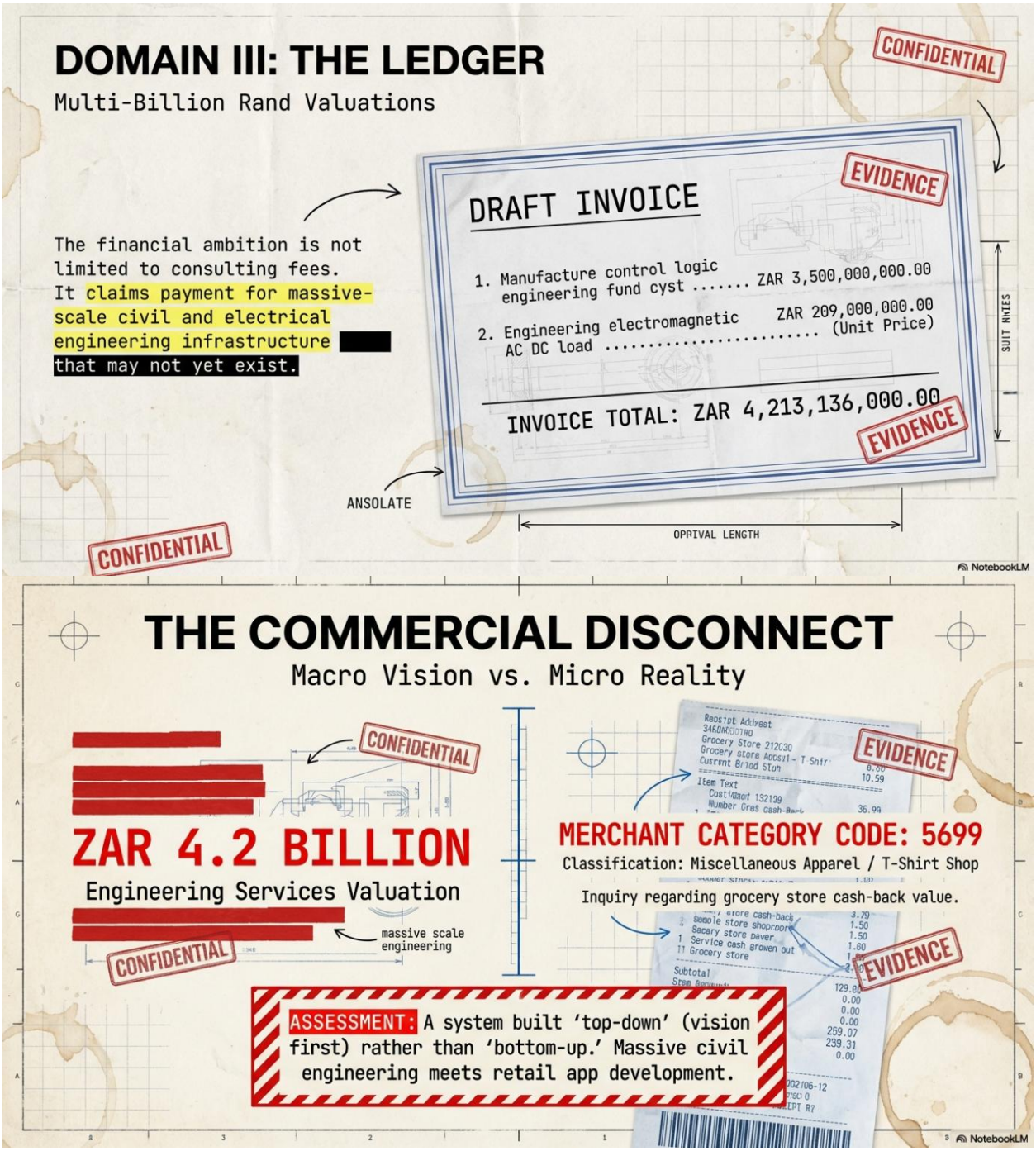
CONFIDENTIAL

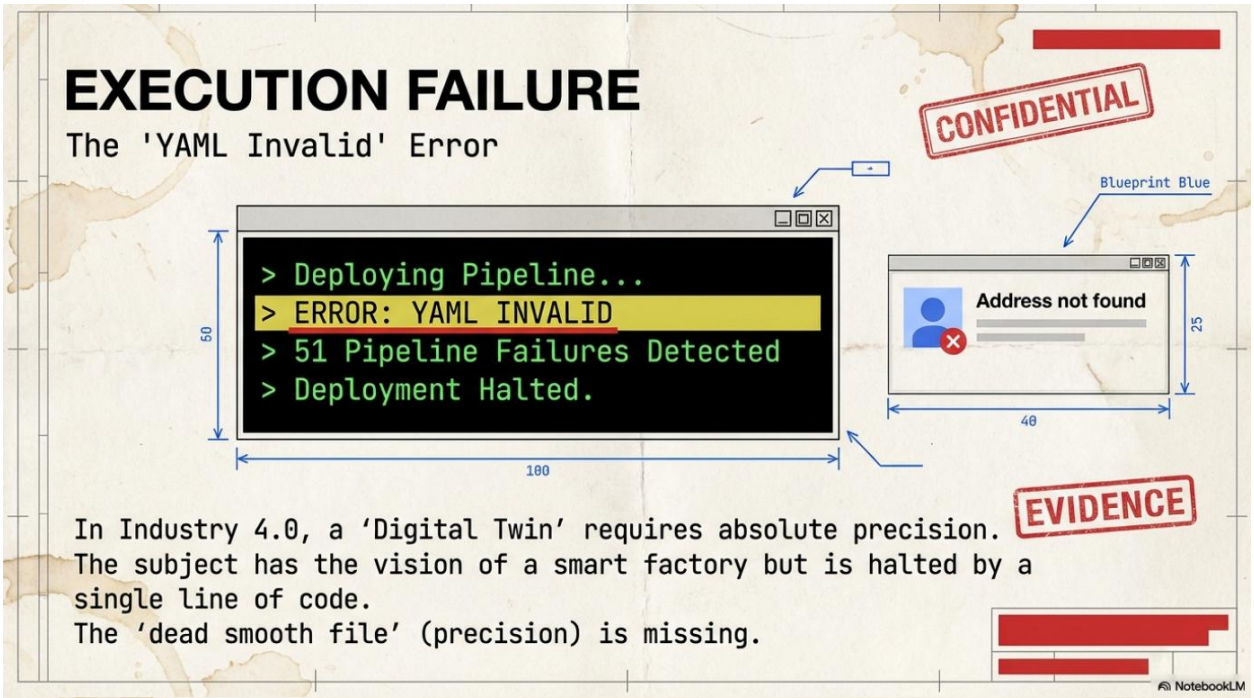
ASSESSMENT: The subject possesses genuine theoretical knowledge but struggles to integrate it with digital execution.

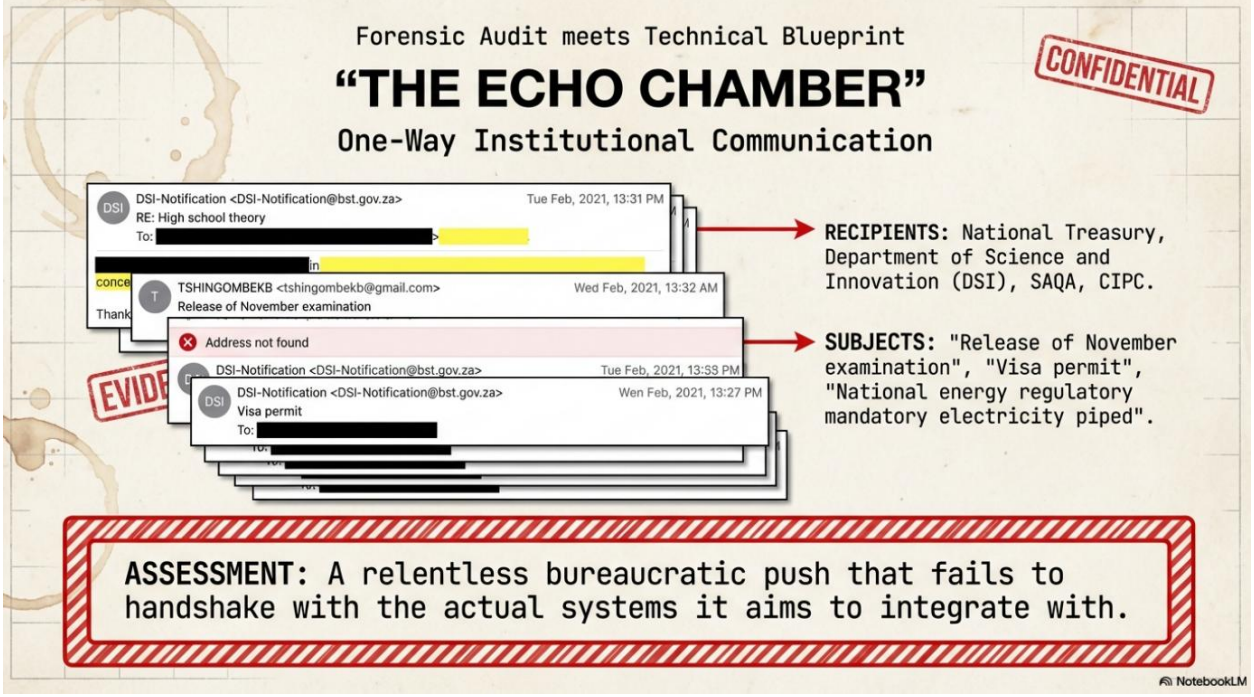
EVIDENCE

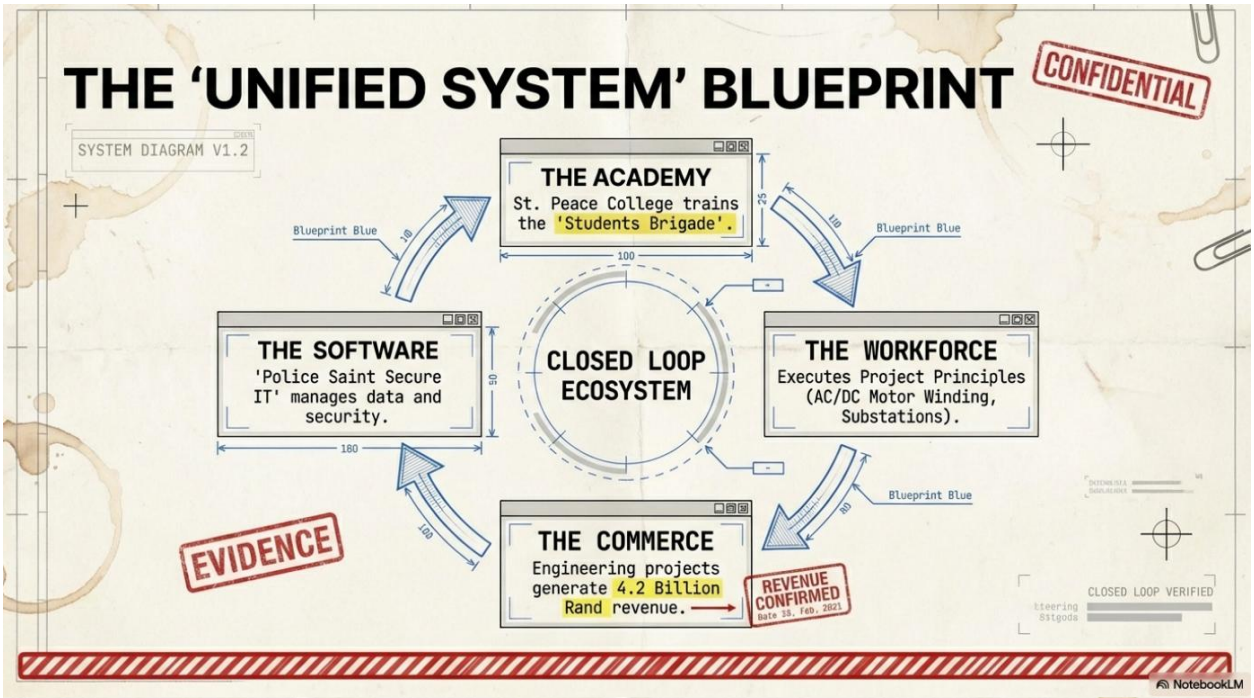
[redacted]

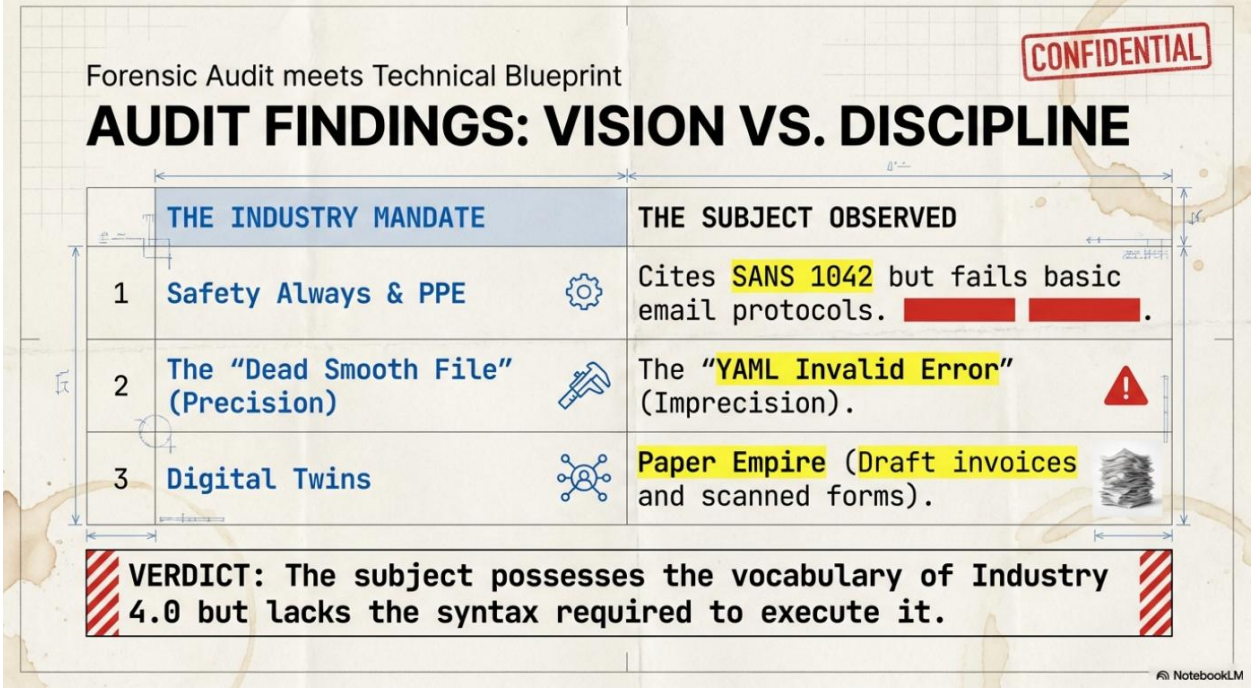
NotebookLM

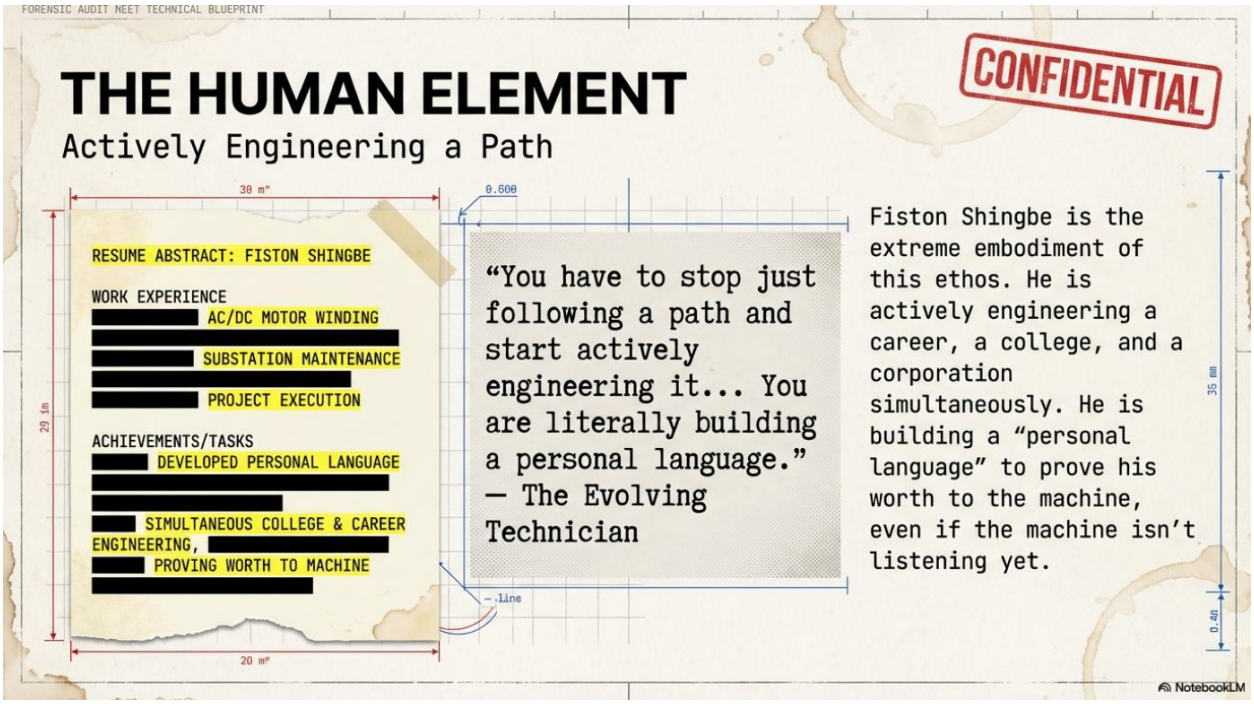

DOMAIN III: THE LEDGER
Multi-Billion Rand Valuations
CONFIDENTIAL
The financial ambition is not limited to consulting fees. It claims payment for massive-scale civil and electrical engineering infrastructure [redacted] that may not yet exist.
DRAFT INVOICE
EVIDENCE
1. Manufacture control logic engineering fund cyst ..... ZAR 3,500,000,000.00
2. Engineering electromagnetic AC DC load ..... ZAR 209,000,000.00 (Unit Price)
INVOICE TOTAL: ZAR 4,213,136,000.00
EVIDENCE
SUIT NNIES
ANSOLATE
OPRIVAL LENGTH
CONFIDENTIAL
NotebookLM
THE COMMERCIAL DISCONNECT
Macro Vision vs. Micro Reality
CONFIDENTIAL
ZAR 4.2 BILLION
Engineering Services Valuation
massive scale engineering
CONFIDENTIAL
EVIDENCE
MERCHANT CATEGORY CODE: 5699
Classification: Miscellaneous Apparel / T-Shirt Shop
Inquiry regarding grocery store cash-back value.
EVIDENCE
ASSESSMENT: A system built 'top-down' (vision first) rather than 'bottom-up.' Massive civil engineering meets retail app development.
NotebookLM


EXECUTION FAILURE
The 'YAML Invalid' Error
CONFIDENTIAL
Blueprint Blue
> Deploying Pipeline...
> ERROR: YAML INVALID
> 51 Pipeline Failures Detected
> Deployment Halted.
50
100
Address not found
25
40
EVIDENCE
In Industry 4.0, a 'Digital Twin' requires absolute precision.
The subject has the vision of a smart factory but is halted by a single line of code.
The 'dead smooth file' (precision) is missing.
NotebookLM


Forensic Audit meets Technical Blueprint
"THE ECHO CHAMBER"
One-Way Institutional Communication
CONFIDENTIAL
DSI-Notification <DSI-Notification@bst.gov.za>
Tue Feb, 2021, 13:31 PM
RE: High school theory
To:
TSHINGOMBEKB <tshingombekb@gmail.com>
Wed Feb, 2021, 13:32 AM
Release of November examination
Address not found
DSI-Notification <DSI-Notification@bst.gov.za>
Tue Feb, 2021, 13:33 PM
DSI-Notification <DSI-Notification@bst.gov.za>
Wen Feb, 2021, 13:27 PM
Visa permit
To:
RECIPIENTS: National Treasury, Department of Science and Innovation (DSI), SAQA, CIPC.
SUBJECTS: "Release of November examination", "Visa permit", "National energy regulatory mandatory electricity piped".
ASSESSMENT: A relentless bureaucratic push that fails to handshake with the actual systems it aims to integrate with.
NotebookLM


THE 'UNIFIED SYSTEM' BLUEPRINT
CONFIDENTIAL
SYSTEM DIAGRAM V1.2
THE ACADEMY
St. Peace College trains the 'Students Brigade'.
Blueprint Blue
Blueprint Blue
THE SOFTWARE
'Police Saint Secure IT' manages data and security.
CLOSED LOOP ECOSYSTEM
THE WORKFORCE
Executes Project Principles (AC/DC Motor Winding, Substations).
Blueprint Blue
THE COMMERCE
Engineering projects generate 4.2 Billion Rand revenue.
EVIDENCE
REVENUE CONFIRMED
CLOSED LOOP VERIFIED
NotebookLM


CONFIDENTIAL
Forensic Audit meets Technical Blueprint
AUDIT FINDINGS: VISION VS. DISCIPLINE
THE INDUSTRY MANDATE
THE SUBJECT OBSERVED
1 Safety Always & PPE
Cites SANS 1042 but fails basic email protocols. [redacted].
2 The "Dead Smooth File" (Precision)
The "YAML Invalid Error" (Imprecision).
3 Digital Twins
Paper Empire (Draft invoices and scanned forms).
VERDICT: The subject possesses the vocabulary of Industry 4.0 but lacks the syntax required to execute it.
NotebookLM


FORENSIC AUDIT NEET TECHNICAL BLUEPRINT
THE HUMAN ELEMENT
Actively Engineering a Path
CONFIDENTIAL
RESUME ABSTRACT: FISTON SHINGBE
WORK EXPERIENCE
AC/DC MOTOR WINDING
SUBSTATION MAINTENANCE
PROJECT EXECUTION
ACHIEVEMENTS/TASKS
DEVELOPED PERSONAL LANGUAGE
SIMULTANEOUS COLLEGE & CAREER ENGINEERING,
PROVING WORTH TO MACHINE
"You have to stop just following a path and start actively engineering it... You are literally building a personal language." — The Evolving Technician
Fiston Shingbe is the extreme embodiment of this ethos. He is actively engineering a career, a college, and a corporation simultaneously. He is building a "personal language" to prove his worth to the machine, even if the machine isn't listening yet.
NotebookLM

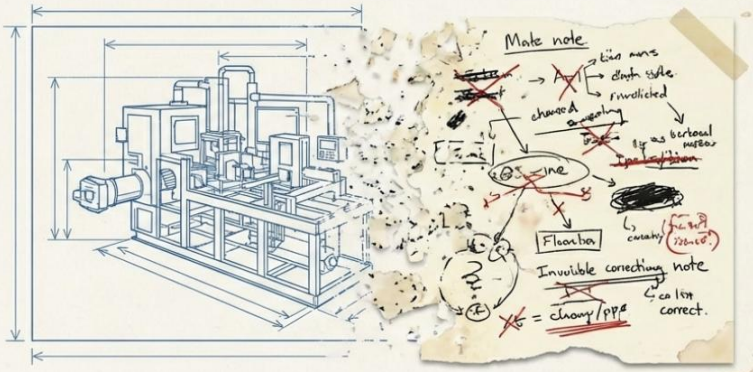
FORENSIC AUDIT NEET TECHNICAL BLUEPRINT

CONFIDENTIAL

FINAL VERDICT

The Chaos of the Smart Revolution

The Shingbe Enterprise represents the chaotic energy of the new industrial era. The tools (AI, Cloud, Blueprints) are available to everyone, but the discipline of execution remains the defining factor.



The data shows the meticulous construction of a system, but its ultimate purpose remains hidden someewhere between a 4 Billion Rand draft invoice and a request for grocery store cash back.

0.380

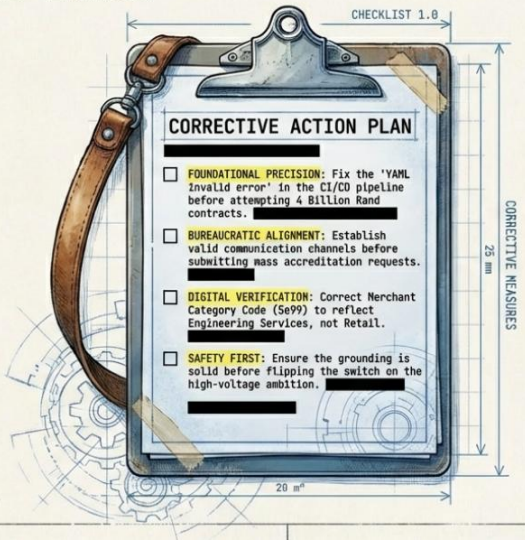
NotebookLM

FORENSIC AUDIT NEET TECHNICAL BLUEPRINT

CONFIDENTIAL

RECOMMENDATIONS:

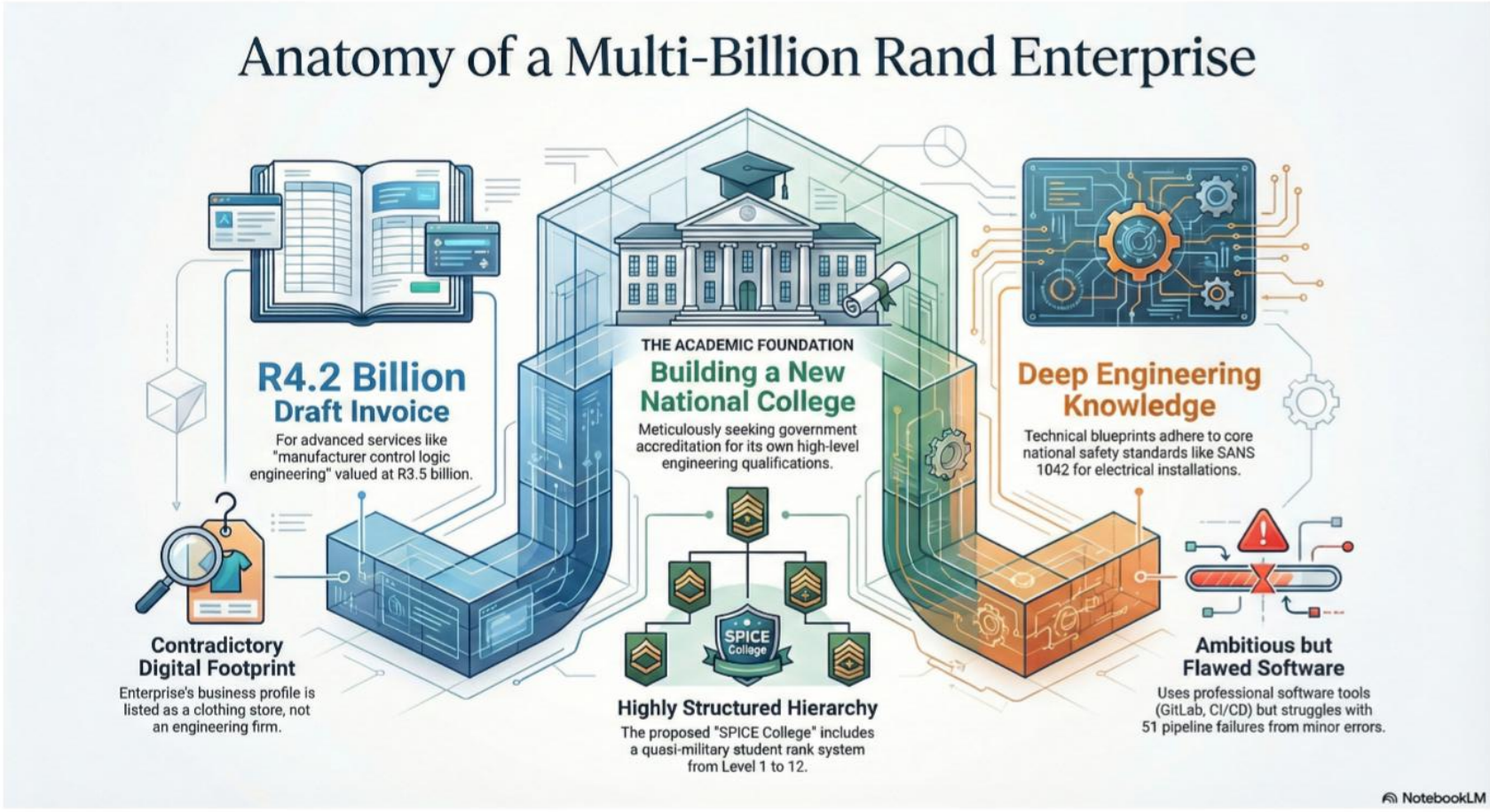
FIXING THE YAML ERROR

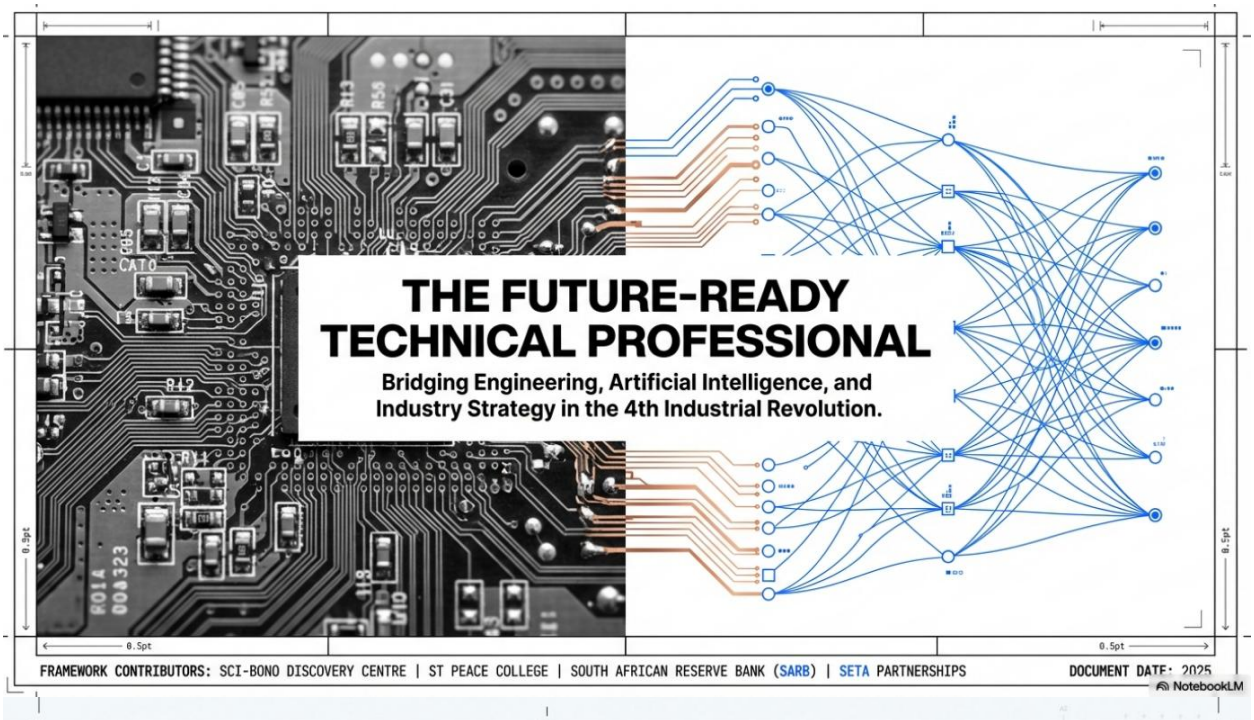

CHECKLIST 1.0
CORRECTIVE ACTION PLAN
[redacted]
FOUNDATIONAL PRECISION: Fix the 'YAML Invalid error' in the CI/CD pipeline before attempting 4 Billion Rand contracts. [redacted]
BUREAUCRATIC ALIGNMENT: Establish valid communication channels before submitting mass accreditation requests. [redacted]
DIGITAL VERIFICATION: Correct Merchant Category Code (5e99) to reflect Engineering Services, not Retail. [redacted]
SAFETY FIRST: Ensure the grounding is solid before flipping the switch on the high-voltage ambition. [redacted]
[redacted]
CORRECTIVE MEASURES
25 mm
20 m²

END OF AUDIT REPORT.

0.380

NotebookLM

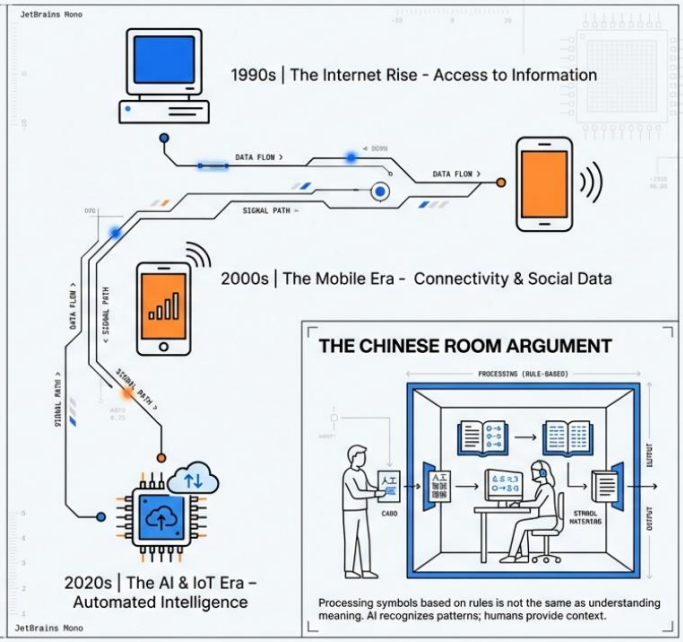

Anatomy of a Multi-Billion Rand Enterprise
R4.2 Billion
Draft Invoice
For advanced services like "manufacturer control logic engineering" valued at R3.5 billion.
THE ACADEMIC FOUNDATION
Building a New National College
Meticulously seeking government accreditation for its own high-level engineering qualifications.
Deep Engineering Knowledge
Technical blueprints adhere to core national safety standards like SANS 1042 for electrical installations.
SPICE College
Contradictory Digital Footprint
Enterprise's business profile is listed as a clothing store, not an engineering firm.
Highly Structured Hierarchy
The proposed "SPICE College" includes a quasi-military student rank system from Level 1 to 12.
Ambitious but Flawed Software
Uses professional software tools (GitLab, CI/CD) but struggles with 51 pipeline failures from minor errors.
NotebookLM

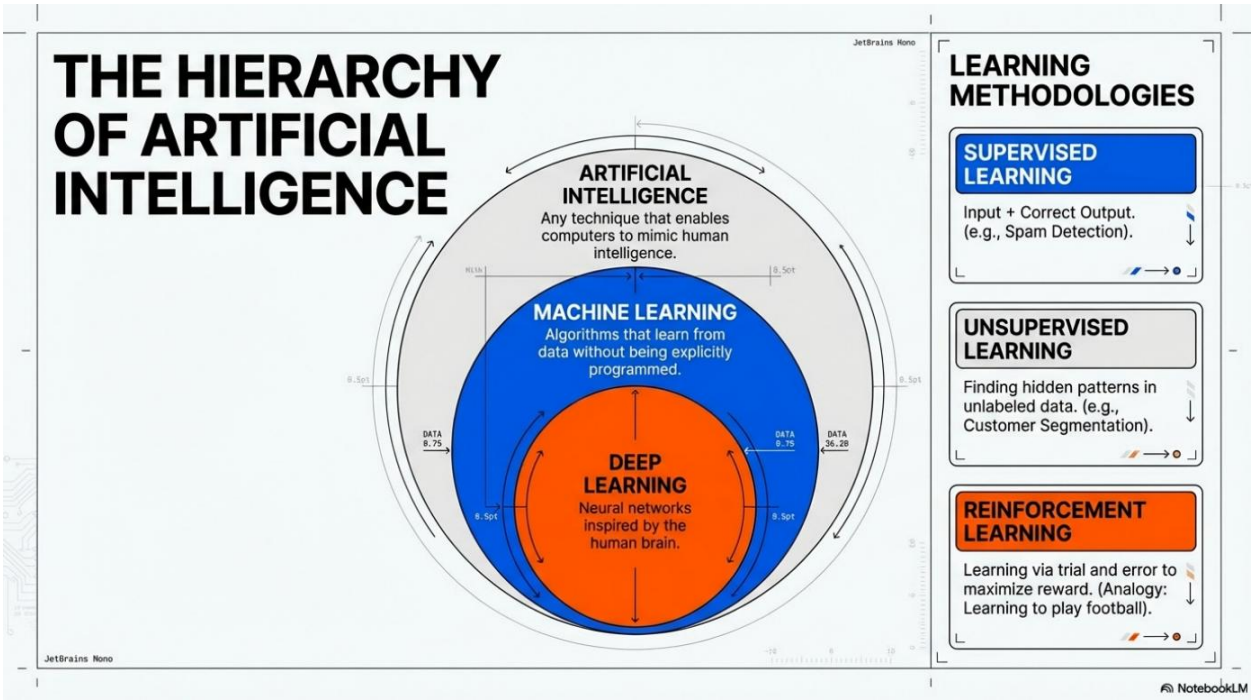

THE FUTURE-READY TECHNICAL PROFESSIONAL
Bridging Engineering, Artificial Intelligence, and Industry Strategy in the 4th Industrial Revolution.
FRAMEWORK CONTRIBUTORS: SCI-BONO DISCOVERY CENTRE | ST PEACE COLLEGE | SOUTH AFRICAN RESERVE BANK (SARB) | SETA PARTNERSHIPS
DOCUMENT DATE: 2025
NotebookLM

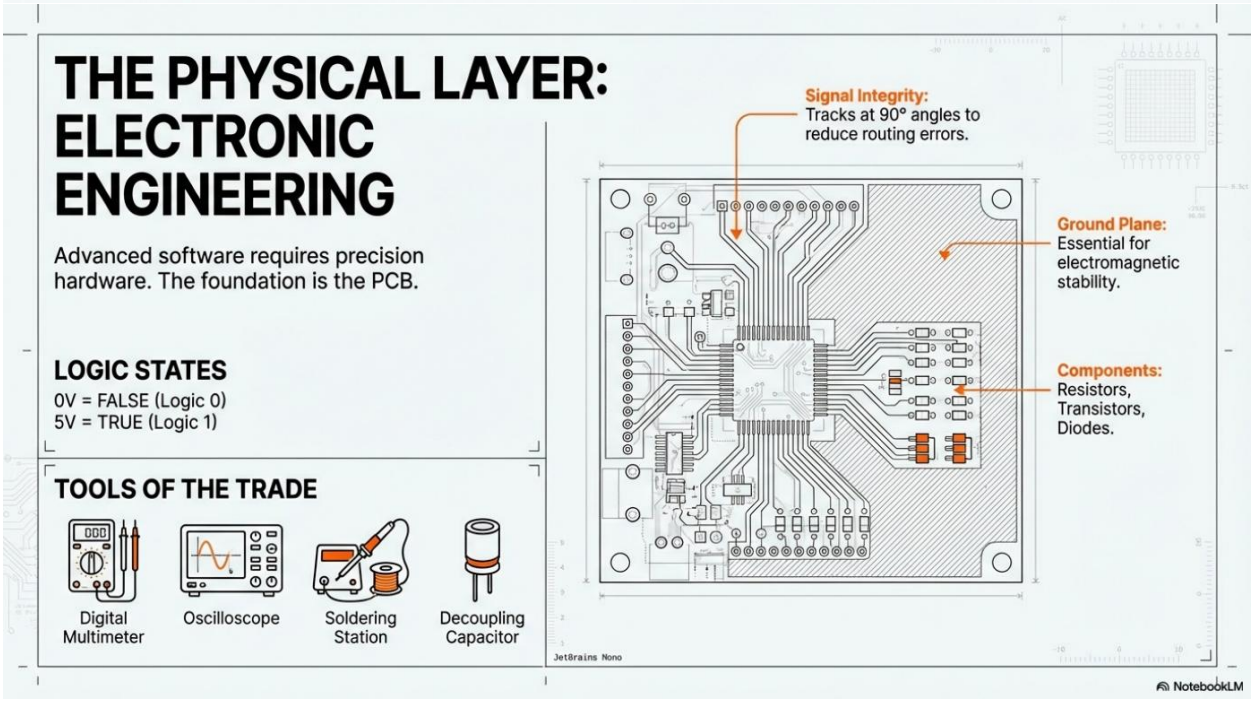
INTELLIGENCE IN THE AGE OF DATA

The definition of technical work is shifting. We have moved from manual inputs to massive data generation via IoT, mobile transactions, and industrial sensors. Data is the fuel; Machine Learning is the engine.

"Knowledge is having the data. Intelligence is applying it."


1990s | The Internet Rise - Access to Information
DATA FLOW
SIGNAL PATH
2000s | The Mobile Era - Connectivity & Social Data
2020s | The AI & IoT Era – Automated Intelligence
THE CHINESE ROOM ARGUMENT
PROCESSING (RULE-BASED)
Processing symbols based on rules is not the same as understanding meaning. AI recognizes patterns; humans provide context.
NotebookLM


THE HIERARCHY OF ARTIFICIAL INTELLIGENCE
ARTIFICIAL INTELLIGENCE
Any technique that enables computers to mimic human intelligence.
MACHINE LEARNING
Algorithms that learn from data without being explicitly programmed.
DEEP LEARNING
Neural networks inspired by the human brain.
LEARNING METHODOLOGIES
SUPERVISED LEARNING
Input + Correct Output. (e.g., Spam Detection).
UNSUPERVISED LEARNING
Finding hidden patterns in unlabeled data. (e.g., Customer Segmentation).
REINFORCEMENT LEARNING
Learning via trial and error to maximize reward. (Analogy: Learning to play football).
NotebookLM


THE PHYSICAL LAYER: ELECTRONIC ENGINEERING
Advanced software requires precision hardware. The foundation is the PCB.
LOGIC STATES
0V = FALSE (Logic 0)
5V = TRUE (Logic 1)
TOOLS OF THE TRADE
Digital Multimeter
Oscilloscope
Soldering Station
Decoupling Capacitor
Signal Integrity: Tracks at 90° angles to reduce routing errors.
Ground Plane: Essential for electromagnetic stability.
Components: Resistors, Transistors, Diodes.
NotebookLM

16:9 Technical Editorial

GOVERNANCE, SAFETY, AND COMPLIANCE

Technical competence is insufficient without the license to operate.

DATA PROTECTION

POPI ACT (Protection of Personal Information)

Mandates lawful processing of personal data. Critical for banking and security sectors.

WORKPLACE SAFETY

OHS ACT 85 (Occupational Health & Safety)

Requirements for gas detection, ventilation, and protective gear in mining and industrial environments.

LABOUR & ETHICS

LABOUR RELATIONS ACT & EMPLOYMENT EQUITY

Codes of Good Practice against fraud and corruption. Disciplinary codes and grievance procedures.

JetBrains Mono NotebookLM

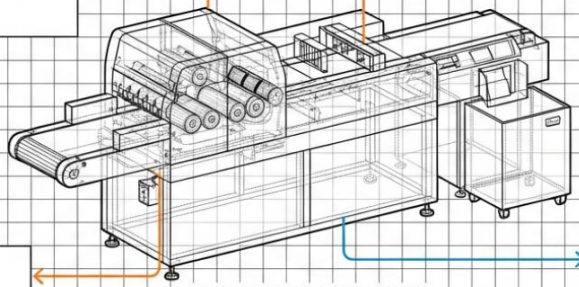
16:9 Technical Editorial

CASE STUDY: ENGINEERING AT THE SARB

South African Reserve Bank: Convergence of Data Science and Electromechanics

PROCESSING SPEED:
1,200 notes per minute (Counting) / 1,000 notes per minute (Serial Reading)

SENSORS:
Multi-sensor array including UV (Ultraviolet), Magnetic IR, and CIS technology



OPERATING SYSTEM:
Embedded Linux OS.

FUNCTION:
Real-time counterfeit detection, currency tracing, and fitness sorting.

CASH SORTER JL 305 SERIES

The Role: Maintaining high-availability systems where Python scripts meet physical currency transport mechanisms.

JetBrains Mono NotebookLM

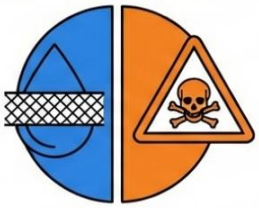
16:9 Technical Editorial

INNOVATION IN RESOURCES & MINING

From manual extraction to nanotech optimization.

THE TECH

NANOTECHNOLOGY:
Used in water purification for mine effluent treatment.



GAS DETECTION:
Metal oxide nanowires used to detect Carbon Monoxide in real-time.

THE TRADE

MILLWRIGHTS	RIGGERS	BOILERMAKERS	AMMUNITION FITTERS
Integrated electrical and mechanical maintenance.	Heavy load lifting and movement.	Structural steel and plating.	Explosives handling and safety.

JetBrains Mono NotebookLM

MODERN SECURITY & ASSET PROTECTION

Regulated by PSIRA (Private Security Industry Regulatory Authority).

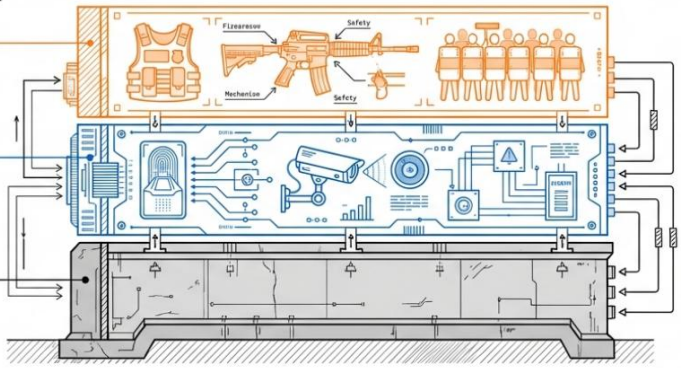
Technical Editorial
0.5pt

SECURITY COMPETENCY STACK

OPERATIONAL READINESS
Firearm competency,
Risk management,
Crowd control protocols.

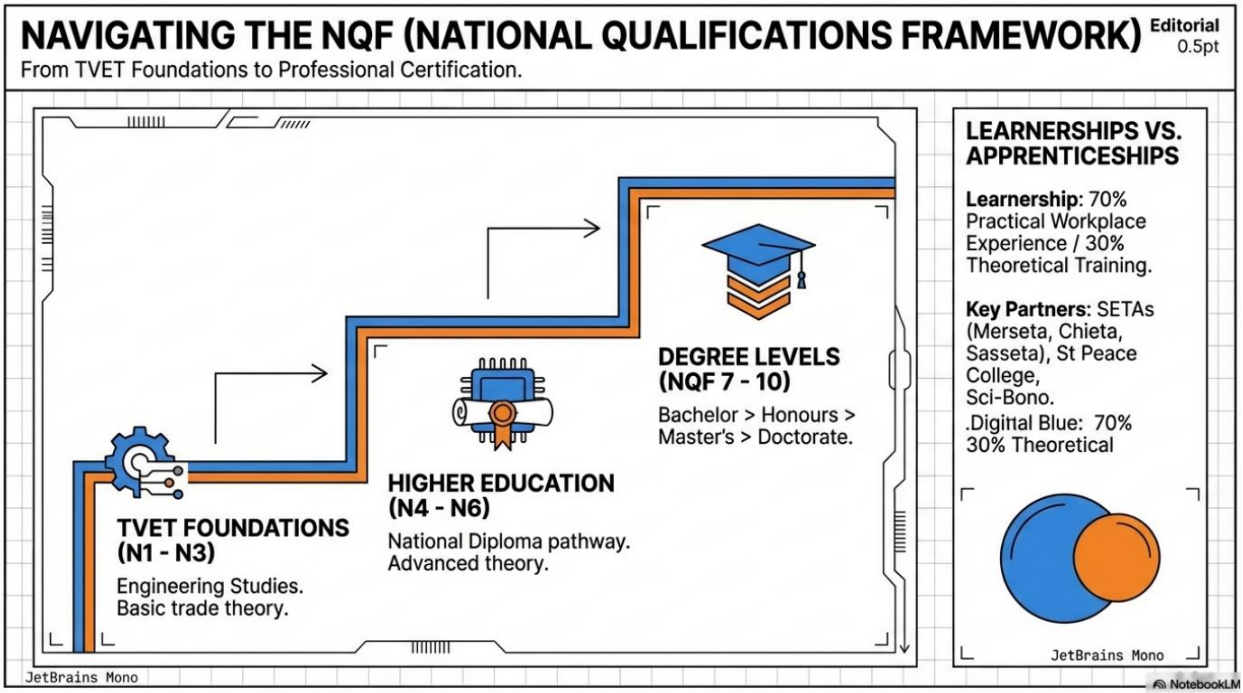
TECHNOLOGY INTEGRATION
Biometric access control, CCTV monitoring systems, Alarm system wiring.

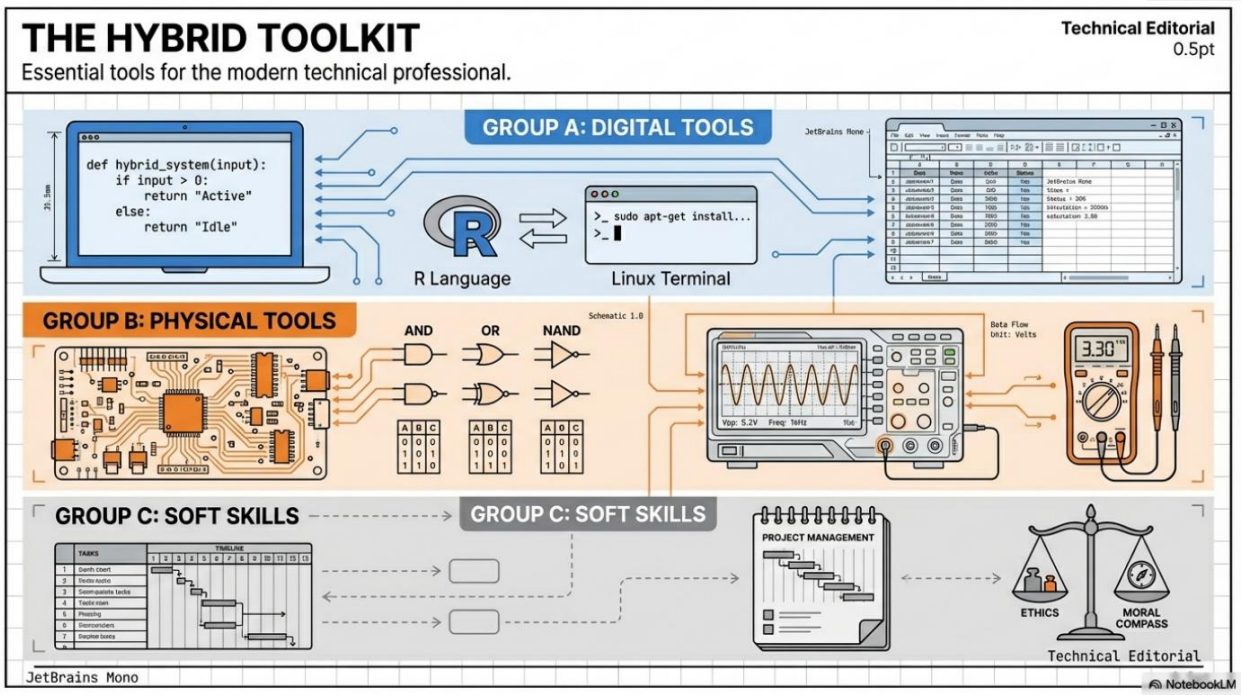
LEGAL AUTHORITY
Criminal Procedure Act. Use of lethal force permitted only when immediate threat to life exists.

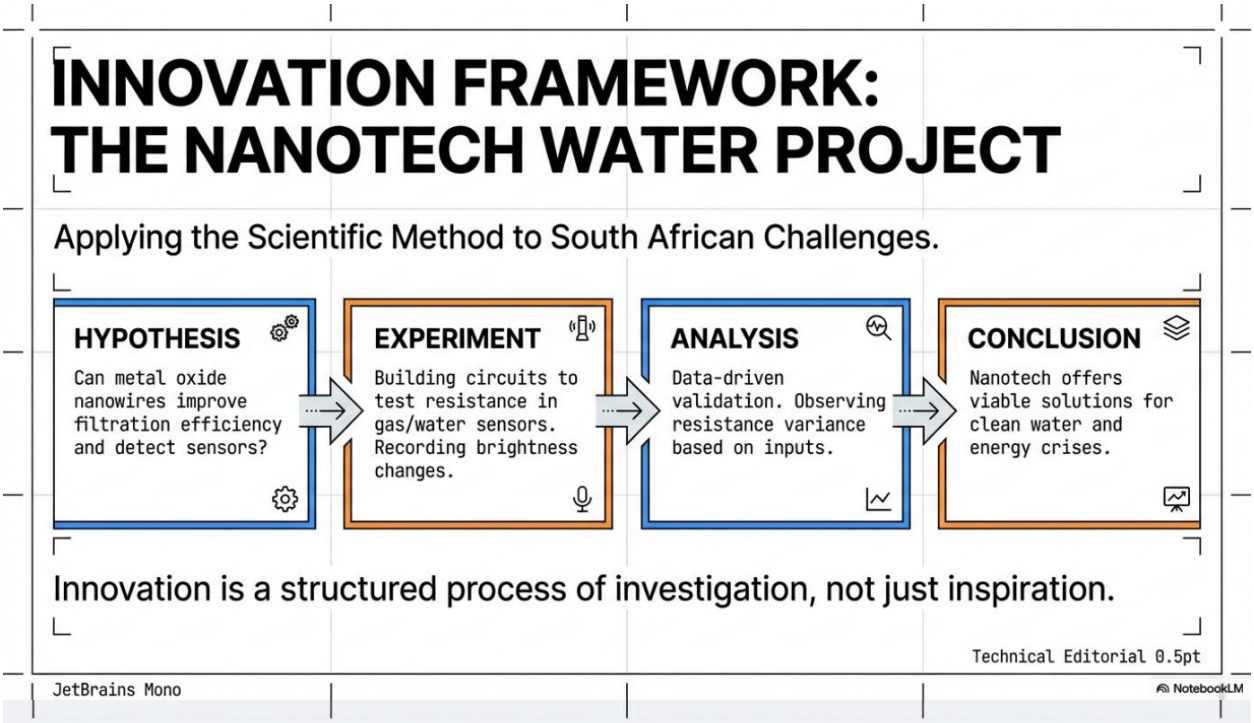


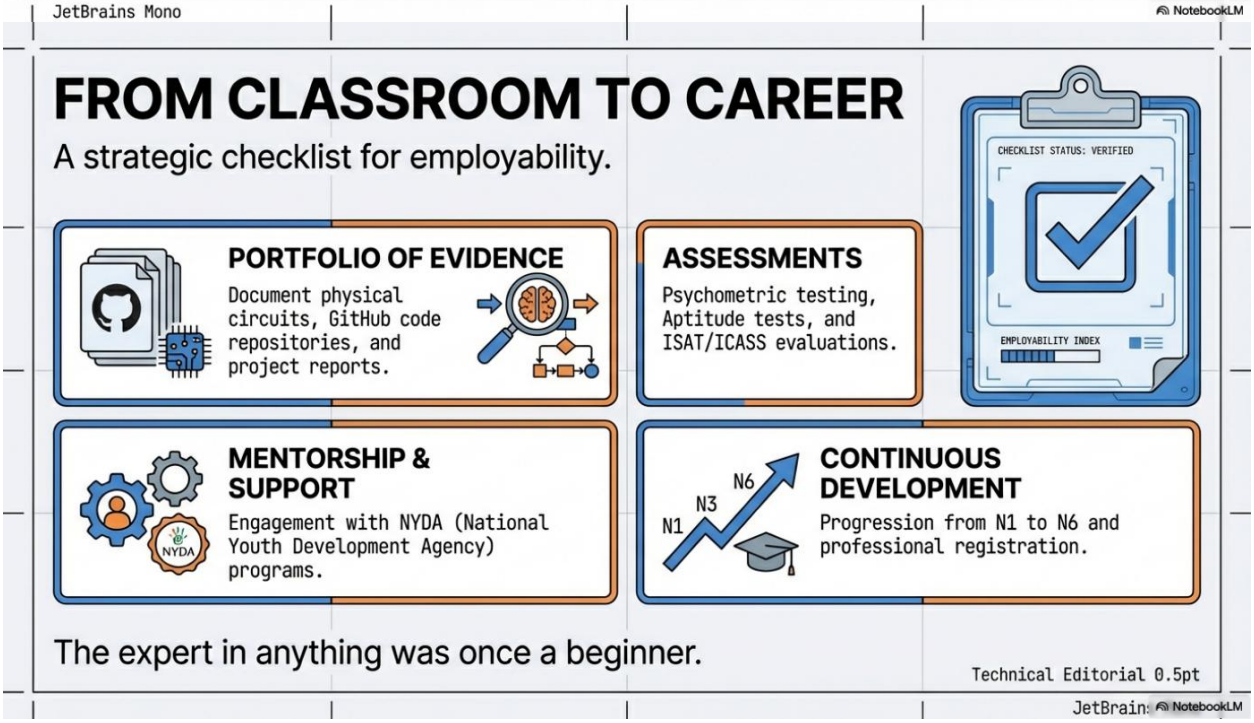
Security is the application of reasonable steps to eliminate or minimize risk.

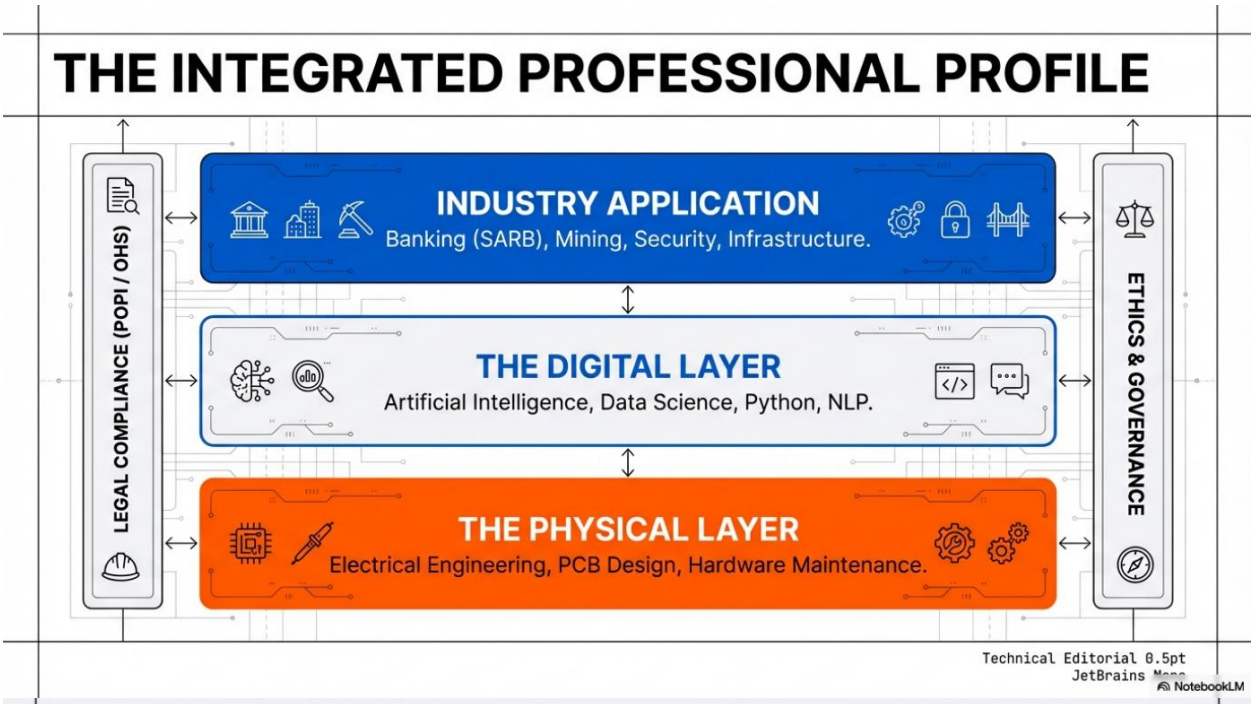
JetBrains Mono NotebookLM

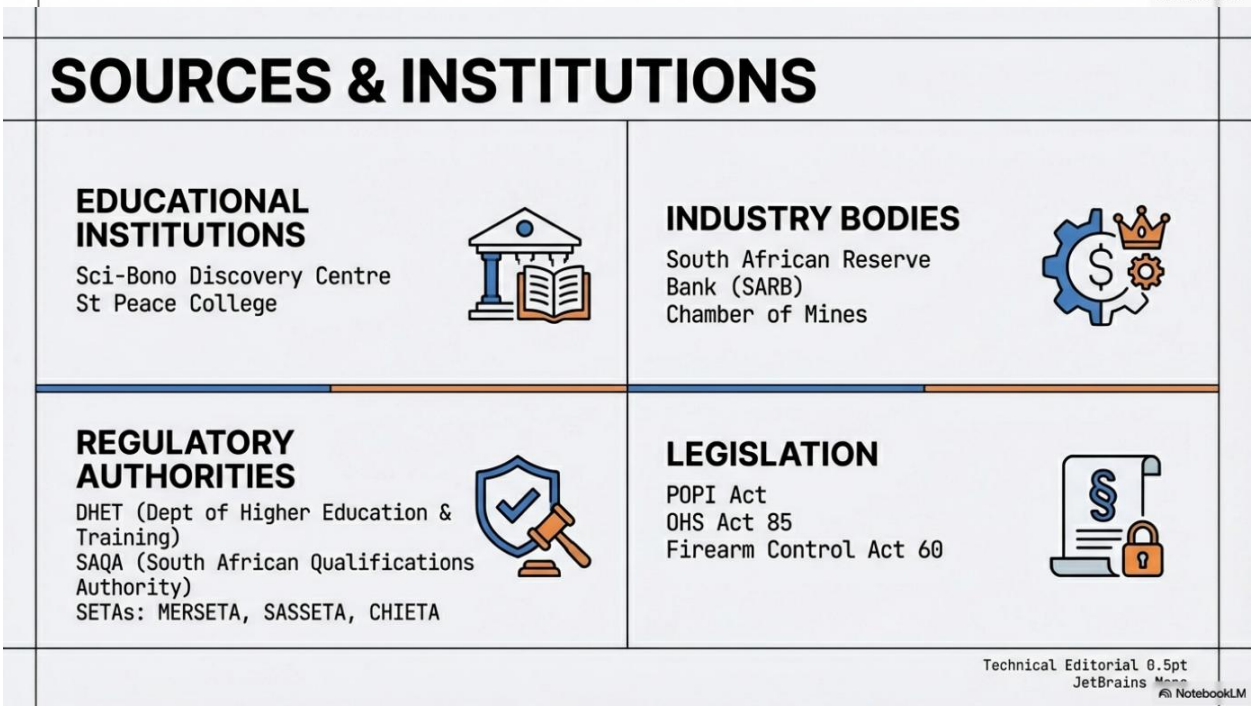

NAVIGATING THE NQF (NATIONAL QUALIFICATIONS FRAMEWORK)
Editorial
0.5pt
From TVET Foundations to Professional Certification.
TVET FOUNDATIONS (N1 - N3)
Engineering Studies.
Basic trade theory.
HIGHER EDUCATION (N4 - N6)
National Diploma pathway.
Advanced theory.
DEGREE LEVELS (NQF 7 - 10)
Bachelor > Honours > Master's > Doctorate.
LEARNERSHIPS VS. APPRENTICESHIPS
Learnership: 70% Practical Workplace Experience / 30% Theoretical Training.
Key Partners: SETAs (Merseta, Chieta, Sasseta), St Peace College, Sci-Bono.
.Digital Blue: 70% 30% Theoretical
JetBrains Mono
JetBrains Mono
NotebookLM

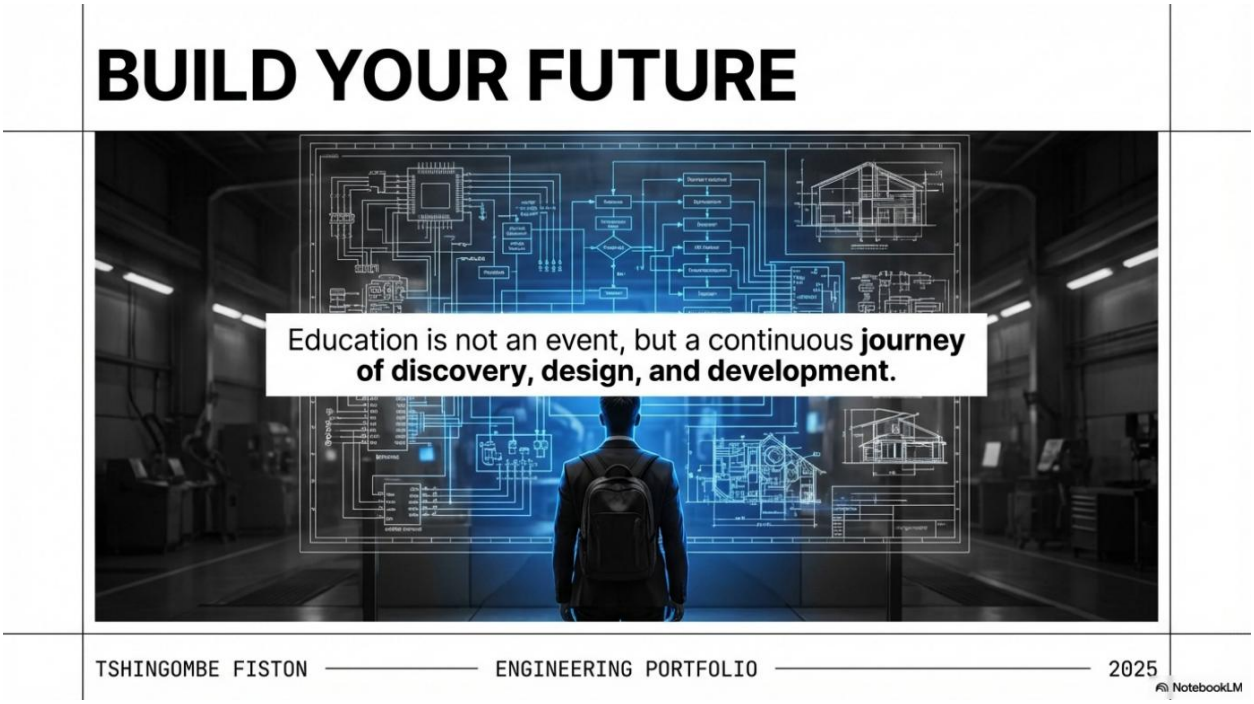

THE HYBRID TOOLKIT
Technical Editorial
0.5pt
Essential tools for the modern technical professional.
GROUP A: DIGITAL TOOLS
def hybrid_system(input):
if input > 0:
return "Active"
else:
return "Idle"
R Language
>_ sudo apt-get install...
Linux Terminal
GROUP B: PHYSICAL TOOLS
AND
OR
NAND
GROUP C: SOFT SKILLS
GROUP C: SOFT SKILLS
PROJECT MANAGEMENT
ETHICS
MORAL COMPASS
Technical Editorial
JetBrains Mono
NotebookLM


INNOVATION FRAMEWORK:
THE NANOTECH WATER PROJECT
Applying the Scientific Method to South African Challenges.
HYPOTHESIS
Can metal oxide nanowires improve filtration efficiency and detect sensors?
EXPERIMENT
Building circuits to test resistance in gas/water sensors. Recording brightness changes.
ANALYSIS
Data-driven validation. Observing resistance variance based on inputs.
CONCLUSION
Nanotech offers viable solutions for clean water and energy crises.
Innovation is a structured process of investigation, not just inspiration.
Technical Editorial 0.5pt
JetBrains Mono
NotebookLM


FROM CLASSROOM TO CAREER
A strategic checklist for employability.
CHECKLIST STATUS: VERIFIED
EMPLOYABILITY INDEX
PORTFOLIO OF EVIDENCE
Document physical circuits, GitHub code repositories, and project reports.
ASSESSMENTS
Psychometric testing, Aptitude tests, and ISAT/ICASS evaluations.
MENTORSHIP & SUPPORT
Engagement with NYDA (National Youth Development Agency) programs.
NYDA
N1
N3
N6
CONTINUOUS DEVELOPMENT
Progression from N1 to N6 and professional registration.
The expert in anything was once a beginner.
Technical Editorial 0.5pt
NotebookLM


THE INTEGRATED PROFESSIONAL PROFILE
LEGAL COMPLIANCE (POPI / OHS)
INDUSTRY APPLICATION
Banking (SARB), Mining, Security, Infrastructure.
THE DIGITAL LAYER
Artificial Intelligence, Data Science, Python, NLP.
THE PHYSICAL LAYER
Electrical Engineering, PCB Design, Hardware Maintenance.
ETHICS & GOVERNANCE
Technical Editorial 0.5pt
JetBrains
NotebookLM


SOURCES & INSTITUTIONS
EDUCATIONAL INSTITUTIONS
Sci-Bono Discovery Centre
St Peace College
INDUSTRY BODIES
South African Reserve Bank (SARB)
Chamber of Mines
REGULATORY AUTHORITIES
DHET (Dept of Higher Education & Training)
SAQA (South African Qualifications Authority)
SETAs: MERSETA, SASSETA, CHIETA
LEGISLATION
POPI Act
OHS Act 85
Firearm Control Act 60
Technical Editorial 0.5pt
JetBrains
NotebookLM


BUILD YOUR FUTURE
Education is not an event, but a continuous journey of discovery, design, and development.
TSHINGOMBE FISTON
ENGINEERING PORTFOLIO
2025
NotebookLM

Your 5-Hour Journey into Artificial Intelligence

Master AI in Just 5 Hours for Free. Earn all 6 AI certifications at **no cost** through **44 bite-sized videos.**

1 AI Basics

2 Generative AI

3 Internet Search and Beyond

4 Responsible AI

5 What is Microsoft Copilot

6 AI For All

What is AI?

A computer system's ability to learn from past data and errors to make predictions.

Knowledge vs. Intelligence

Knowledge

Knowledge is stored information

Intelligence

Intelligence is the ability to apply and adapt it

3 Primary Ways Machines Learn

Supervised

Unsupervised

Reinforcement

Models are trained using Supervised, Unsupervised, or Reinforcement learning techniques.

NotebookLM

The Multidisciplinary Engineer

A Portfolio of Technical Mastery & Future Innovation

Bridging State-Space Control Theory, Telecommunications Infrastructure, and Sustainable Development.

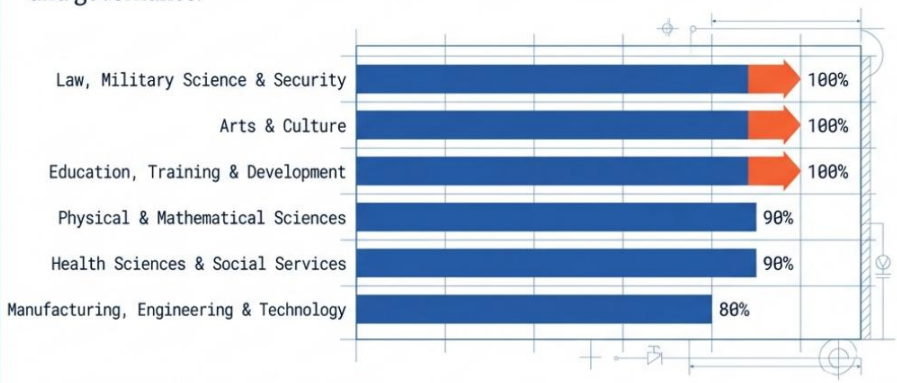
$$x' = Ax + Bu$$

Profile: Tshingombe Tshitadi Fiston | Focus: Engineering Systems, Law & Social Innovation

NotebookLM

The Foundation: A Validated Intersection of Disciplines

Career assessments confirm a unique cognitive profile: the logic required for engineering combined with the systemic understanding required for law and governance.



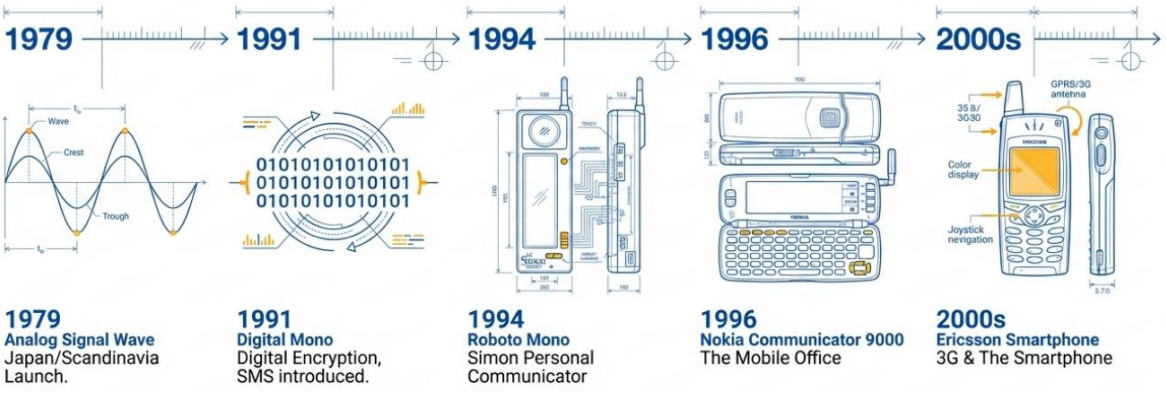
Source: NCAP Interest Questionnaire Results

KEY INSIGHT

A career trajectory built on the convergence of technical precision and societal governance.

NotebookLM

Contextual Fluency: The Evolution of Connectivity



1979
Analog Signal Wave
Japan/Scandinavia Launch.

1991
Digital Mono
Digital Encryption, SMS introduced.

1994
Roboto Mono
Simon Personal Communicator

1996
Nokia Communicator 9000
The Mobile Office

2000s
Ericsson Smartphone
3G & The Smartphone

'We had exactly the right view of what it was all about... We were about 5 years ahead.' — Jorma Ollia, Nokia

NotebookLM

Theoretical Rigor: Advanced Systems Modeling

Mastering State-Space Representation for Linear Time-Invariant (LTI) Systems

State Vector (Internal Memory)

Control Vector (External Inputs)

$$\dot{x}(t) = A(t)x(t) + B(t)u(t) \quad (1)$$

$$y(t) = C(t)x(t) + D(t)u(t) \quad (2)$$

State Vector (Internal Memory)

System Matrices Defining Dynamics

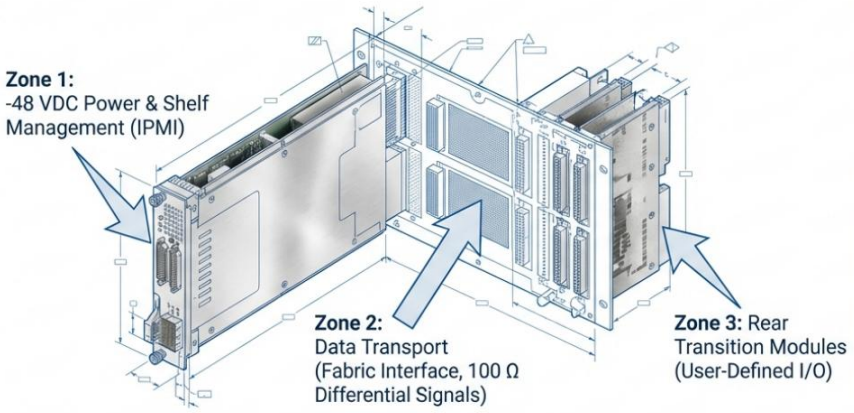
Control Vector (External Inputs)

Application: Moving beyond frequency domain limitations to model **MIMO** (Multiple-Input Multiple-Output) systems found in modern **robotics**, **economics**, and **electrical grids**.

NotebookLM

Hardware Architecture: The ATCA Standard

Advanced Telecommunications Computing Architecture (PICMG 3.x)



- **Form Factors:**
  8U / 12U / 14-slot
- **Thermal Mgmt:**
  IPMC Monitoring
- **Protocols:**
  Ethernet
  Fibre Channel
  InfiniBand

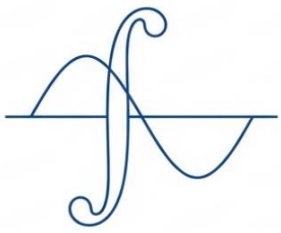
Designed for Carrier Grade 99.999% Uptime.

NotebookLM

Applied Mathematics in Electrical Design

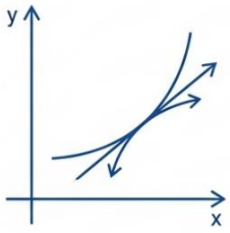
From First Principles to Fault Diagnosis

Integration & Area



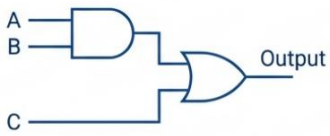
Calculating RMS values in AC theory. Determining centroids for mechanical stress in cable lay-downs.

Differentiation



Analyzing transient responses in RLC circuits. Modeling power loss in transmission lines.

Fault Analysis



Using Boolean Algebra and signal processing calculus to isolate faults in **heavy current systems**.

Derived from N4 Mathematics Syllabus and Industrial Electronics Module 1-7

NotebookLM

Industry Competencies: Power & Automation

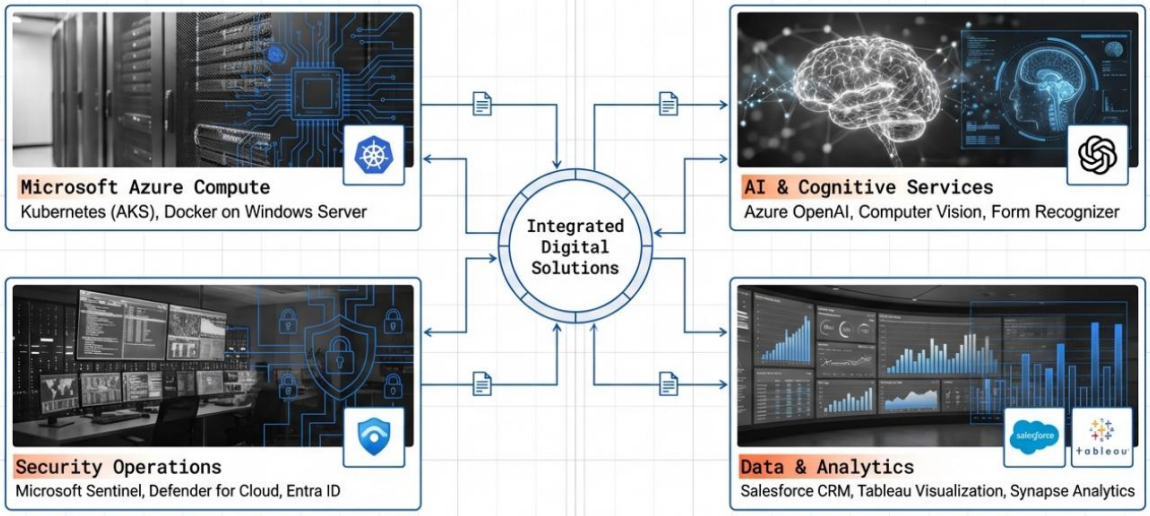
Schneider Electric	**Schneider Electric Ecosystem**
	✓ EcoStruxure Building Operation
	✓ Medium Voltage Design (Arc Flash Simulation)
	✓ Digital Power (Power Factor Correction)
EATON	**Eaton Infrastructure**
EATON	✓ Hardware: Low-Voltage Switchgear, Surge Solutions
	✓ Software: xEnergy & xSpider Configuration Tools

NotebookLM

Precision Engineering Editorial

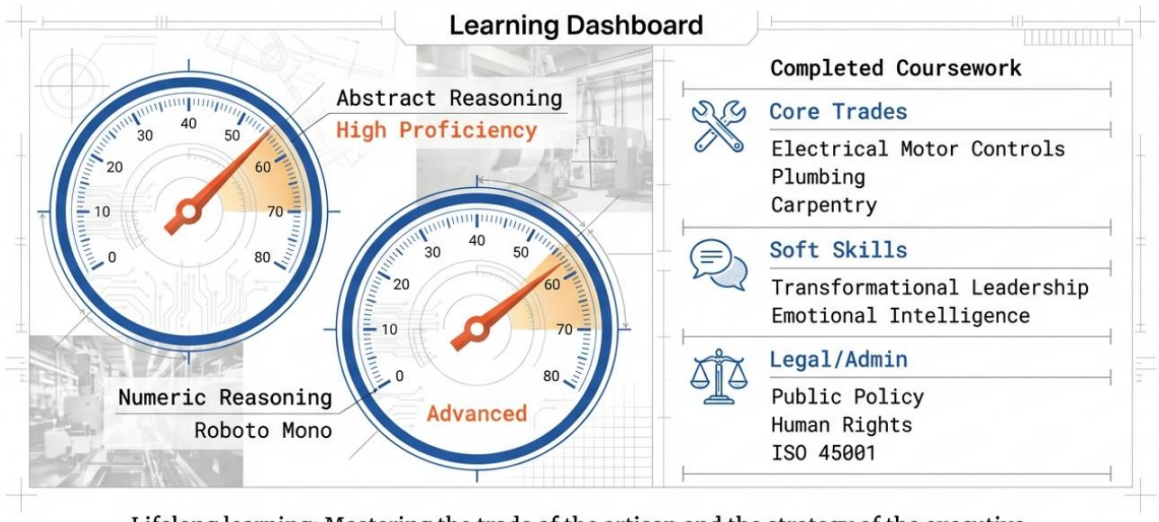
Digital Infrastructure: Cloud, Data & AI

Orchestrating the "Cyber" half of Cyber-Physical Systems


Microsoft Azure Compute
Kubernetes (AKS), Docker on Windows Server
AI & Cognitive Services
Azure OpenAI, Computer Vision, Form Recognizer
Integrated Digital Solutions
Security Operations
Microsoft Sentinel, Defender for Cloud, Entra ID
Data & Analytics
Salesforce CRM, Tableau Visualization, Synapse Analytics

NotebookLM

Continuous Development & Cognitive Aptitude



Lifelong learning: Mastering the trade of the artisan and the strategy of the executive.

NotebookLM

Precision Engineering Editorial

Research Agenda Pillar I: Smart Energy & Sustainability

Grid Modernization

IoT in Power Systems, Load Shedding Mitigation

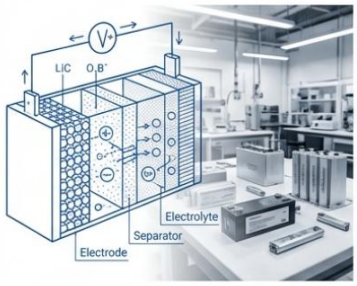
- IoT Integration: 99.9% Uptime

Renewable Integration

Solar/Wind Systems, Bioenergy, Hydropower

- Capacity Growth: +35% Annual

Ecotechnology

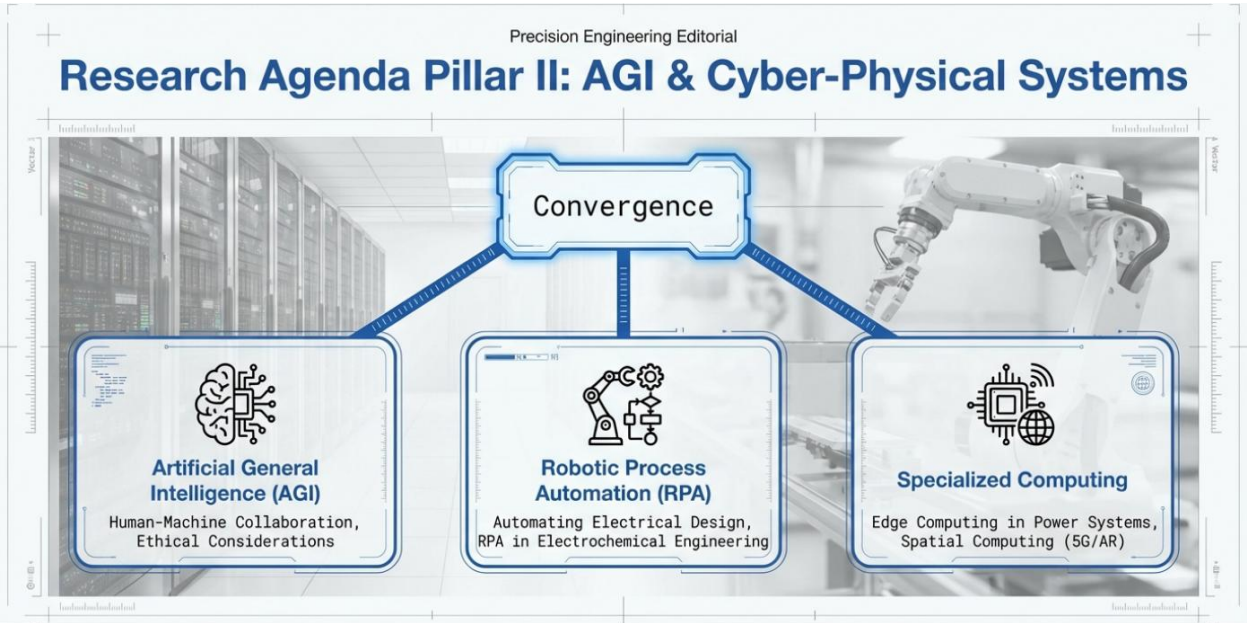


Battery Chemistry, Clean Energy Tech, Environmental Impact

- Efficiency Target: >95% Round-trip

Thesis Focus: Online Retail and E-commerce behavior in the Renewable Energy Sector

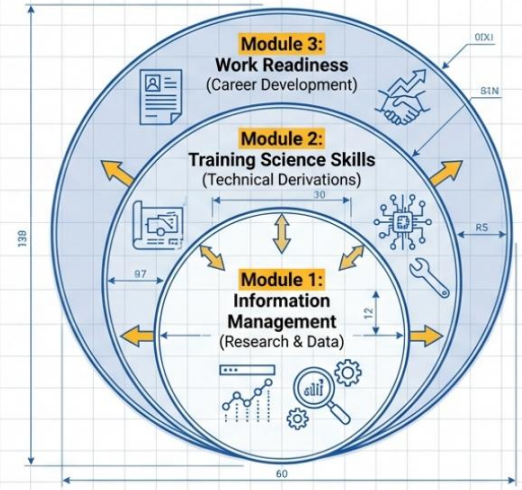
NotebookLM


Precision Engineering Editorial
Research Agenda Pillar II: AGI & Cyber-Physical Systems
Convergence
Artificial General Intelligence (AGI)
Human-Machine Collaboration, Ethical Considerations
Robotic Process Automation (RPA)
Automating Electrical Design, RPA in Electrochemical Engineering
Specialized Computing
Edge Computing in Power Systems, Spatial Computing (5G/AR)
How do we secure Cyber-Physical Systems (CPS) while optimizing real-time data processing?
NotebookLM

Research Agenda Pillar III: Governance, Law & Ethics
SMART CONTRACT
Legal Frameworks
- Administrative Law
- Constitutional Law
- Public Safety Regulations
Digital Governance
- Blockchain Regulation
- Cybersecurity in Bibliotechnology
Social Impact
- Human Rights
- Social Justice in Public Admin
- Crisis Management
Thesis Topic 21: Distributed-Ledger Technology in Education—Securing credentials and privacy through blockchain.
NotebookLM

Strategic Vision: The 'Sci-Bono' Experimental Curriculum

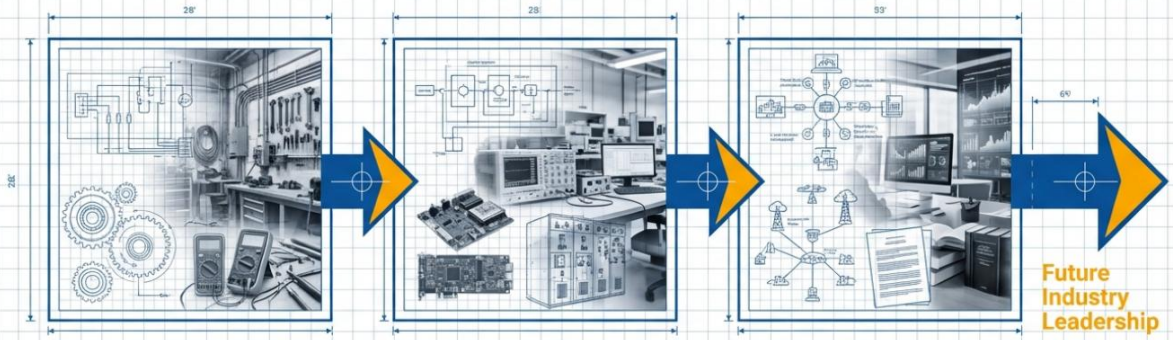
Integrating Technical Skills with Career Readiness



To bridge the gap between NATED/TVET college programs and the demands of modern industry (SCQF alignment).

NotebookLM

The Career Trajectory



Operational Foundation

Inputs: Trade Courses, Math N4.
Outputs: Wiring, Fault Finding.

Technical Specialization

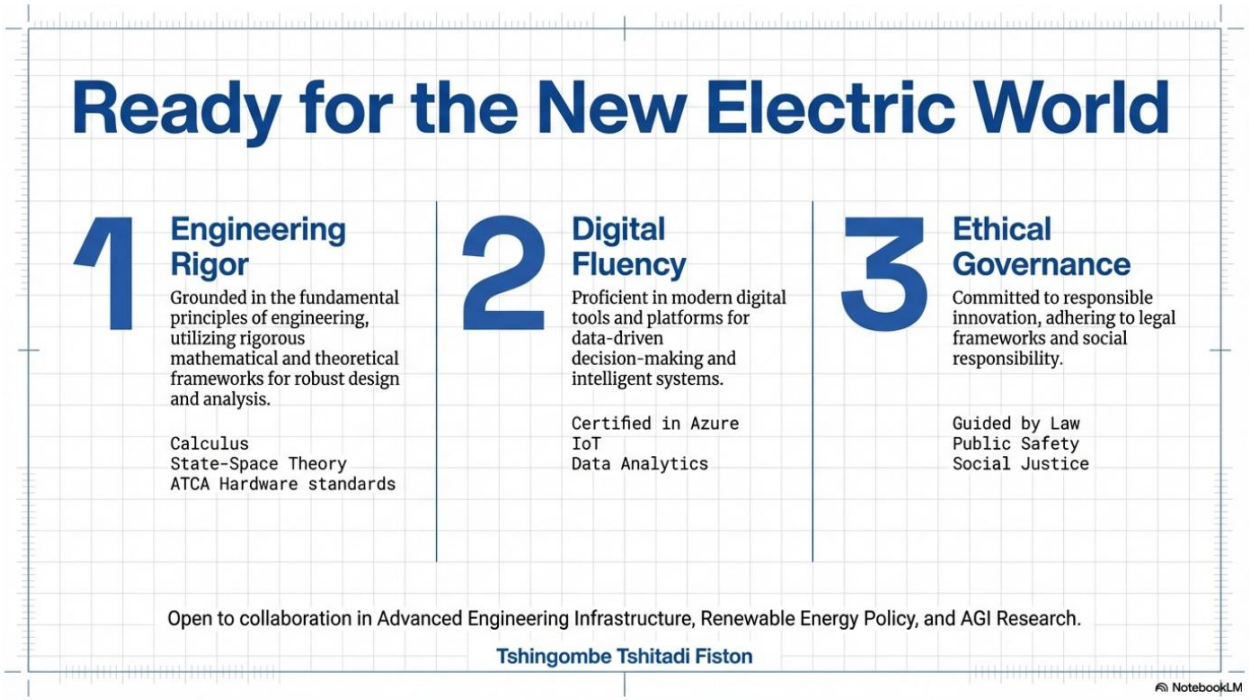
Inputs: Control Theory, ATCA, Eaton Certs.
Outputs: System Modeling, MV Design.

Innovation & Leadership

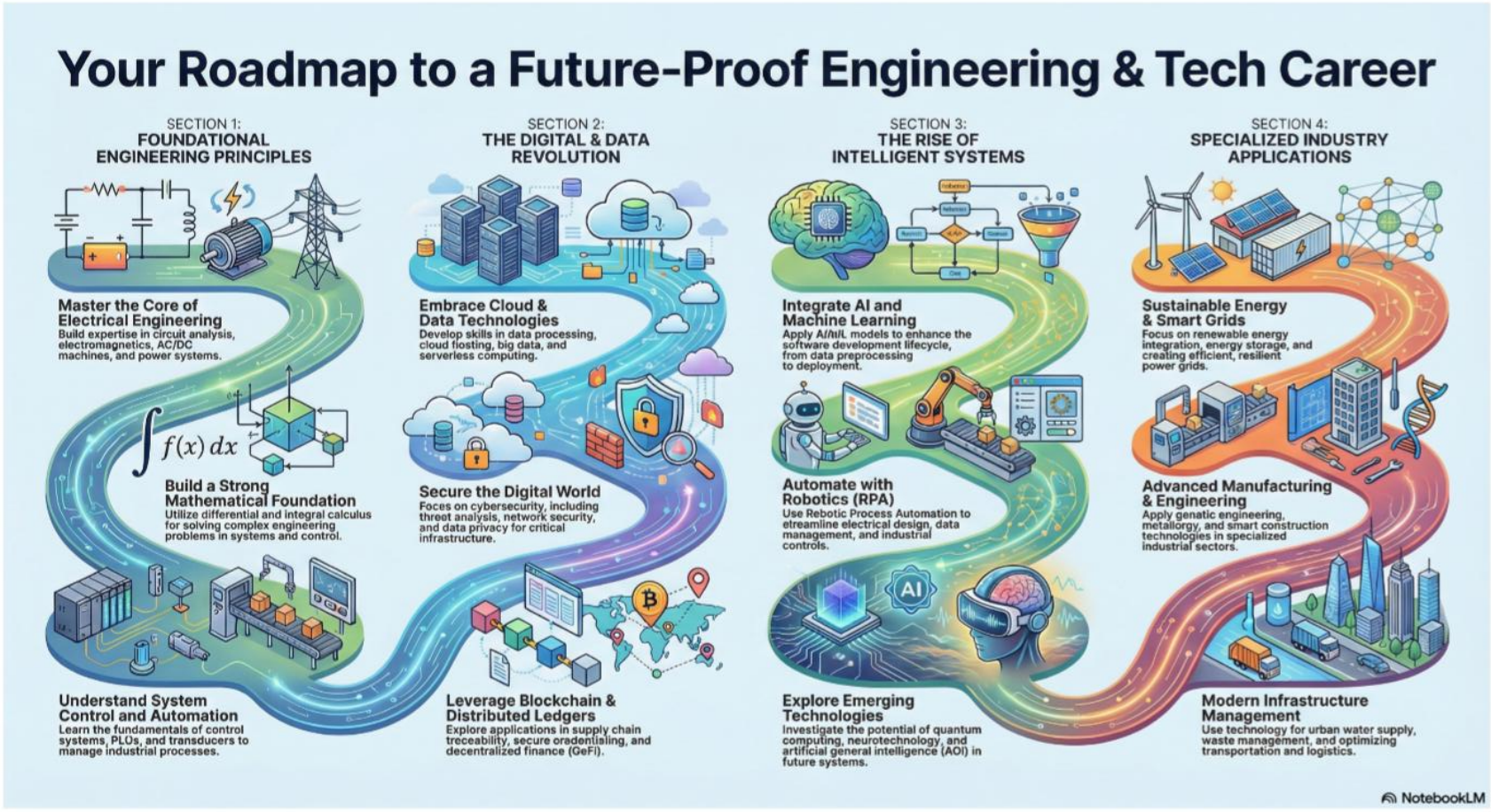
Inputs: Thesis Research (AGI/Energy), Legal Studies.
Outputs: Smart Grid Policy, Education Reform.

Future Industry Leadership

NotebookLM


Ready for the New Electric World
1
Engineering Rigor
Grounded in the fundamental principles of engineering, utilizing rigorous mathematical and theoretical frameworks for robust design and analysis.
Calculus
State-Space Theory
ATCA Hardware standards
2
Digital Fluency
Proficient in modern digital tools and platforms for data-driven decision-making and intelligent systems.
Certified in Azure
IoT
Data Analytics
3
Ethical Governance
Committed to responsible innovation, adhering to legal frameworks and social responsibility.
Guided by Law
Public Safety
Social Justice
Open to collaboration in Advanced Engineering Infrastructure, Renewable Energy Policy, and AGI Research.
Tshingombe Tshitadi Fiston
NotebookLM

Your Roadmap to a Future-Proof Engineering & Tech Career


SECTION 1:
FOUNDATIONAL ENGINEERING PRINCIPLES
Master the Core of Electrical Engineering
Build expertise in circuit analysis, electromagnetics, AC/DC machines, and power systems.
$\int f(x)\,dx$
Build a Strong Mathematical Foundation
Utilize differential and integral calculus for solving complex engineering problems in systems and control.
Understand System Control and Automation
Learn the fundamentals of control systems, PLOs, and transducers to manage industrial processes.
SECTION 2:
THE DIGITAL & DATA REVOLUTION
Embrace Cloud & Data Technologies
Develop skills in data processing, cloud fiosting, big data, and serverless computing.
Secure the Digital World
Foces on cybersecurity, including threet analysis, network security, and data privacy for critical infrastructure.
Leverage Blockchain & Distributed Ledgers
Explore applications in supply chain treceability, secure oradentisling, and decentralized finance (GeFi).
SECTION 3:
THE RISE OF INTELLIGENT SYSTEMS
Integrate AI and Machine Learning
Apply AI/tI/L models to enhance the software development lifecycle, from data preprocessing to deployment.
Automate with Robotics (RPA)
Use Rebotic Process Automation to etreamline electrical design, data management, and industrial controls.
AI
Explore Emerging Technologies
Investigate the potential of quantum computing, neurotechnology, and artificial general intelligence (AOI) in future systems.
SECTION 4:
SPECIALIZED INDUSTRY APPLICATIONS
Sustainable Energy & Smart Grids
Focus on renewable energy integration, energy storage, and creating efficient, resilient power grids.
Advanced Manufacturing & Engineering
Apply genatic engineering, metallorgy, and smart construction technologies in specialized industrial sectors.
Modern Infrastructure Management
Use technology for urban water supply, waste management, and optimizing transportation and logistics.
NotebookLM

STATUS: STALLED / INVALID

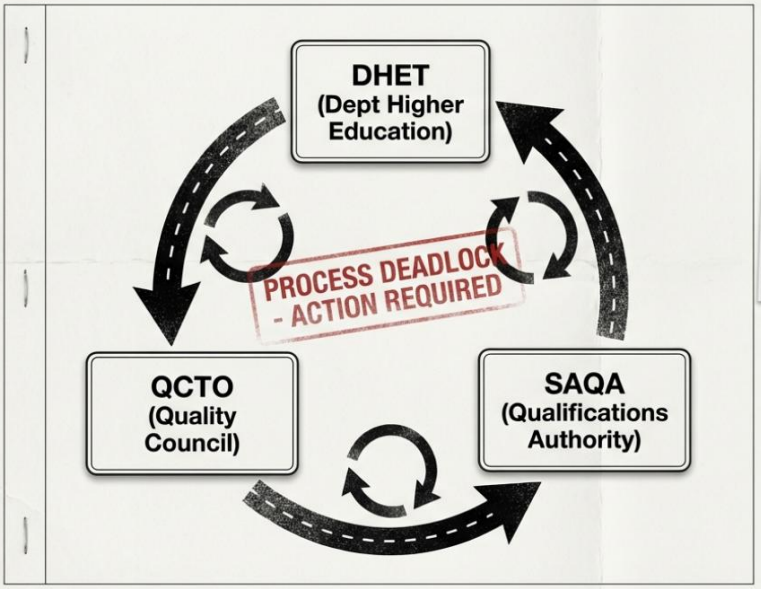
SUBJECT PROFILE: TSHINGOMBE FISTON (2024)

Comprehensive Review of Academic, Legal, and Professional Correspondence.

LOCATION Johannesburg, South Africa / DRC National	**PRIMARY OBJECTIVE** Verification of N-Diploma Engineering Qualifications via SAQA
SECONDARY OBJECTIVE Employment in High-Security Sectors (Counter Terrorism, Forensics, Software Dev)	**KEY IDENTIFIERS** References to 'St Peace College', 'Kananga5' (GitLab), and 'Academic Student Brigade'.
CONTEXT NOTE NOTE: This file contains a collection of rejection letters, Freedom of Information (FOI) requests, handwritten engineering formulas, and unilateral declarations of authority.	

NotebookLM

THE VERIFICATION DEADLOCK (SAQA/QCTO)



SYSTEMIC REJECTION EVIDENCE

From: SAQA Foreign Qualifications
Date: Nov 5, 2024
Subject: Re: letter explanation theoretical pratical base work

Message: "Kindly note that our system is not compatible with the iPhone, iPad, and MacBook... Ensure that your default internet browser is Google Chrome."

REJECTED

TIMELINE & STATUS

Turnaround Time: 90 working days (Standard).

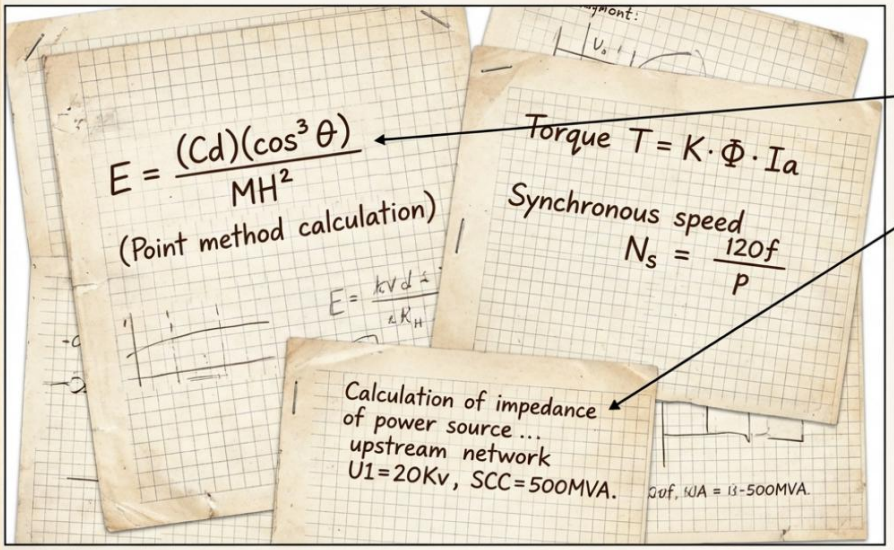
Correspondence Span: April 2024 - October 2024.

Official Response: "The issuance of NN Diploma is currently paused. We have communicated this to all colleges."

STATUS: PENDING REVIEW - CRITICAL DELAY VERIFIED.

NotebookLM

ARTIFACTS OF COMPETENCE: ENGINEERING THEORY


$E = \frac{(Cd)(\cos^3\theta)}{MH^2}$
(Point method calculation)
Torque $T = K \cdot \Phi \cdot Ia$
Synchronous speed
$N_s = \frac{120f}{P}$
Calculation of impedance of power source ... upstream network U1=20Kv, SCC=500MVA.

ANALYSIS

Subject maintains a rigorous personal curriculum ('St Peace College') covering AC/DC machines, instrumentation, and power transmission.

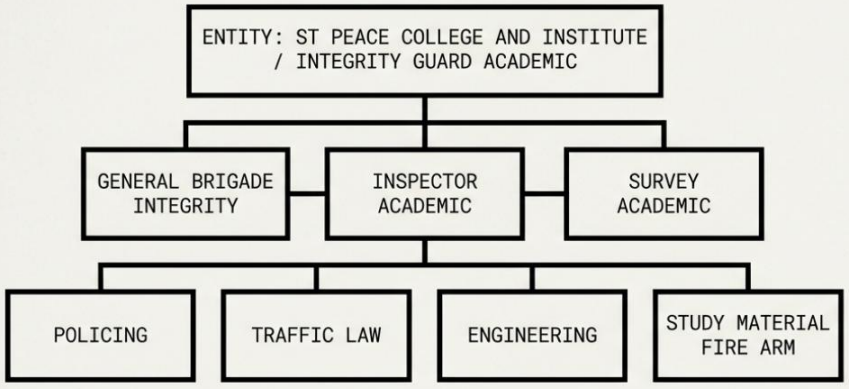
These artifacts validate that technical learning occurred, regardless of external validation.

STATUS: REVIEWING EVIDENCE

CASE FILE: COMPETENCE REVIEW – PAGE 4

NotebookLM

THE SHADOW INSTITUTION: 'ST PEACE COLLEGE'



"SECTOR: ST PEACE, INTEGRITY GUARD ACADEMIC, OFFICER ACADEMIC, POLICE ACADEMIC, DEFENSE ACADEMIC."

CONTEXT

The subject organizes his environment militarily, keeping 'Ob books' (Occurrence (Occurrence Books) and 'parade orders' for a student body that appears to exist primarily in his own records.

STATUS: REVIEWING EVIDENCE ✔

NotebookLM

THE OCCURRENCE LOGS (OB BOOK)

DATE/TIME	OCCURRENCE	ACTION TAKEN	SIGN
Morning Shift	Security Measures	Search check building must wear … shoot boots, mask makarapan.	[Signed]
14:00	Incident Report	Report incidence date time close tendered... CDs central supplies bid jhb.	[Signed]
Daily Duty	Patrol	Class room guard, Access patrol academic, Criminal report brigant.	[Signed]

ANALYSIS: The language mimics official police logs ('Action Take', 'Occurrence'), applied to an academic setting. It reveals a conflation of education andlaw enforcement protocols.

STATUS: REVIEWING EVIDENCE

CASE FILE: COMPETENCE REVIEW – PAGE 6

NotebookLM

THE METROPOLITAN POLICE CAMPAIGN (UK)

ROLES APPLIED FOR (JUNE 23, 2024)

1. Counter Terrorism Policing HQ (Band N & M)
2. Forensic Examiner – Forensic Firearms Unit (FFU)
3. Lead Software Developer
4. Specialist Operations Recovery Manager
5. Grievance Assessor

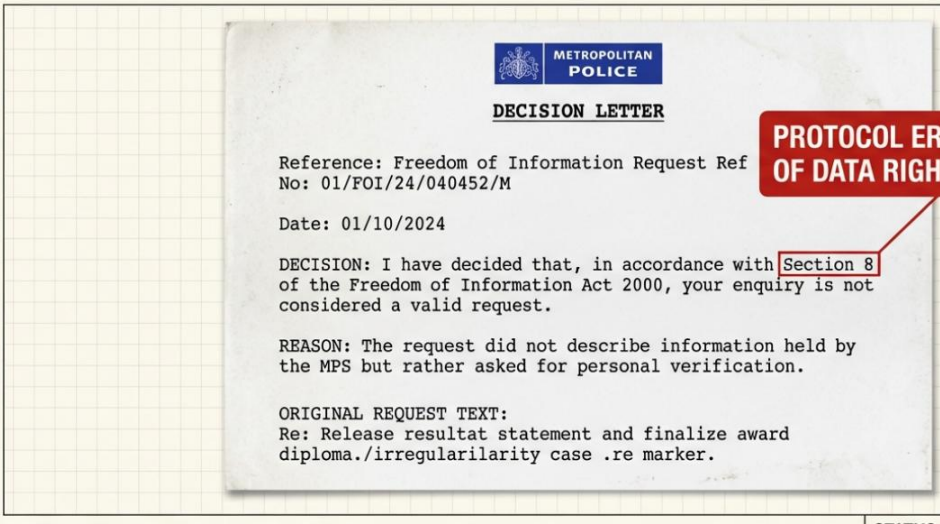
FROM: Met Recruitment Team
23 Jun 2024
Based on the information you have shared so far; we regret to inform you that you are not eligible...
Your individual answers suggest that you do not meet the application criteria.
ELIGIBILITY REJECTION

STATUS: REVIEWING EVIDENCE

CASE FILE: COMPETENCE REVIEW – PAGE 7

NotebookLM

LEGAL RECOURSE: THE INVALID FOI REQUEST



METROPOLITAN POLICE

DECISION LETTER

Reference: Freedom of Information Request Ref No: 01/FOI/24/040452/M

Date: 01/10/2024

DECISION: I have decided that, in accordance with Section 8 of the Freedom of Information Act 2000, your enquiry is not considered a valid request.

REASON: The request did not describe information held by the MPS but rather asked for personal verification.

ORIGINAL REQUEST TEXT:
Re: Release resultat statement and finalize award diploma./irregularilarity case .re marker.

PROTOCOL ERROR: MISUSE OF DATA RIGHTS LAW

CASE FILE: COMPETENCE REVIEW - PAGE 8

STATUS: REVIEWING EVIDENCE ✓

NotebookLM

ESCALATION TO INTELLIGENCE OVERSIGHT

intelligence
Office of the Inspector-General of Intelligence
REPUBLIC OF SOUTH AFRICA

PO Box 1175, MENLYN PARK, 0077 Bogare, Cnr Atterbury & Lois Street, MENLYN
Tel: (012) 367 0645/47/61, Fax: (012) 367 0920

OIGI/IG10(IG80)/6/1/14/5
DIR D07: 12538

5 August 2024

Mr Tshingombe Fiston

Per E-mail Address:
tshingombefiston@gmail.com

Dear Mr Fiston

Re: ***Your Complaint Pertaining To Allegations Of Deleted College Records From Your College Database***

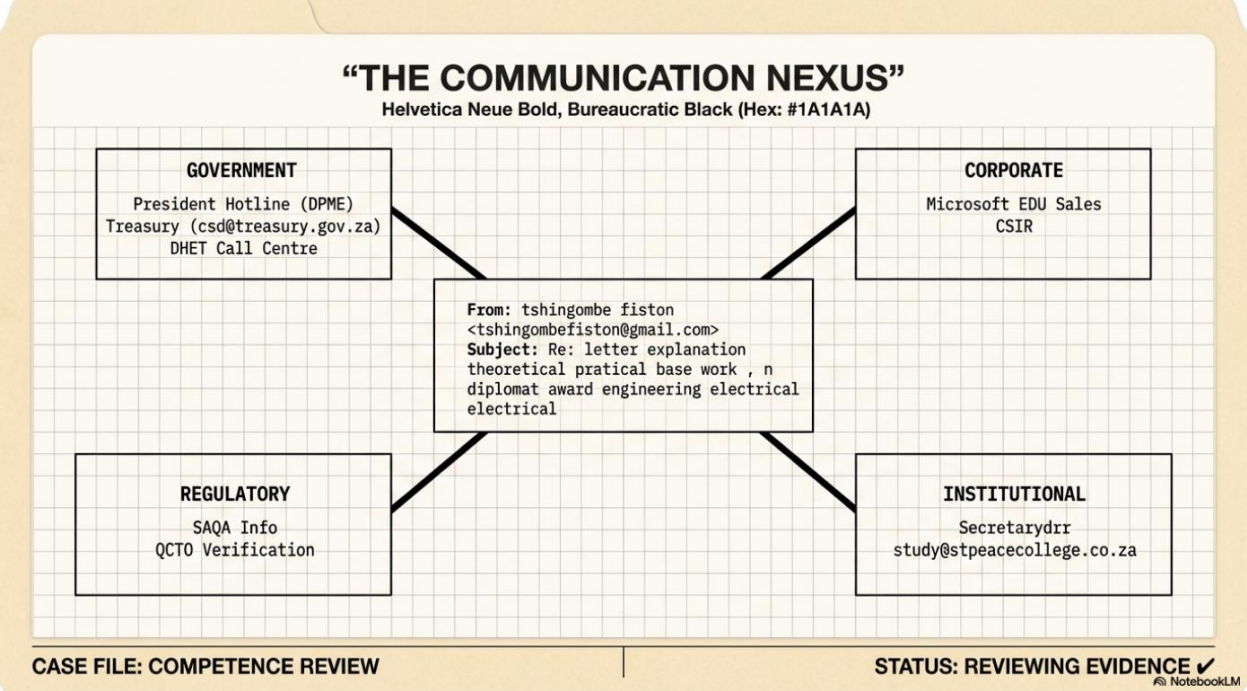
1. I acknowledge receipt of your complaint as received in April 2024.
2. I assessed the information provided and found that your complaint does not fall within the ambit of the mandate of the Office of the Inspector-General of Intelligence (OIGI), in particular Section 7(cA), as outlined in the Intelligence Services Oversight Act 40 of 1994, (hereinafter referred to as the Oversight Act).

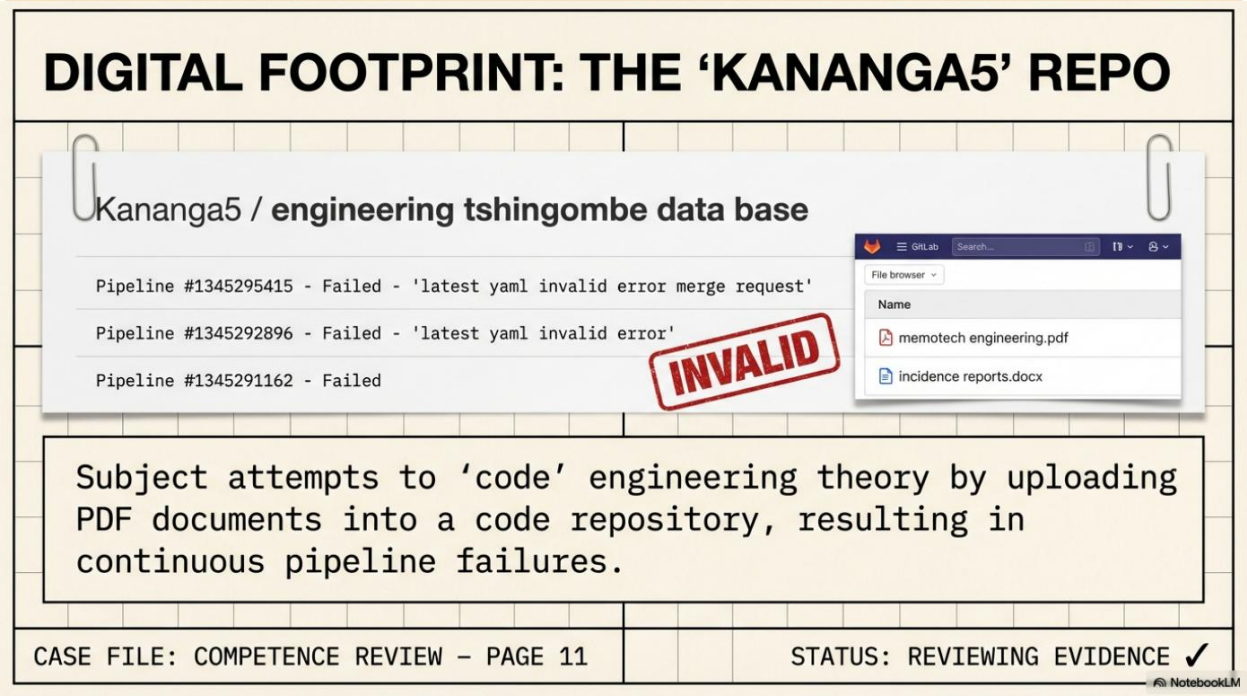
FINDING: The OIGI monitors Intelligence Services, not college database errors. The subject conflated academic grievances with national national intelligence matters.

CASE FILE: COMPETENCE REVIEW - PAGE 9

STATUS: REVIEWING EVIDENCE ✓

NotebookLM


"THE COMMUNICATION NEXUS"
Helvetica Neue Bold, Bureaucratic Black (Hex: #1A1A1A)
GOVERNMENT
President Hotline (DPME)
Treasury (csd@treasury.gov.za)
DHET Call Centre
CORPORATE
Microsoft EDU Sales
CSIR
From: tshingombe fiston <tshingombefiston@gmail.com>
Subject: Re: letter explanation theoretical pratical base work , n diplomat award engineering electrical electrical
REGULATORY
SAQA Info
QCTO Verification
INSTITUTIONAL
Secretarydrr
study@stpeacecollege.co.za
CASE FILE: COMPETENCE REVIEW
STATUS: REVIEWING EVIDENCE ✔
NotebookLM


DIGITAL FOOTPRINT: THE 'KANANGA5' REPO
Kananga5 / engineering tshingombe data base
Pipeline #1345295415 - Failed - 'latest yaml invalid error merge request'
Pipeline #1345292896 - Failed - 'latest yaml invalid error'
Pipeline #1345291162 - Failed
INVALID
GitLab
Search...
File browser
Name
memotech engineering.pdf
incidence reports.docx
Subject attempts to 'code' engineering theory by uploading PDF documents into a code repository, resulting in continuous pipeline failures.
CASE FILE: COMPETENCE REVIEW – PAGE 11
STATUS: REVIEWING EVIDENCE ✓
NotebookLM

EVIDENCE LOCKER: THE ‘FLIP PORTOFILIO’

Item No.	Description	Category
Pocket 1	Examination I’d resultat statement	Academic
Pocket 6	18 PG memotexh drawing (Engineering sketches)	Technical
Pocket 7	City Eskom project implementation	Professional
Pocket 24	Metropolitan on line submission... data right	Legal
Misc	Art work, Wallet documents casebook, St peace college certificate award electricals safety	Personal

INFRASTRUCTURE & RESOURCE CONSTRAINTS

AMBITION	REALITY
Bureaucratic Black **Counter Terrorism HQ** **Forensic Examiner** **Space Science Engineering** **Inspector General Oversight**	**Energy:** ‘Pre-paid meter number’ ‘Affordability charge’ ‘Loadshedding currently’. **Employment:** City Power ‘VACANCY BULLETIN: MANAGER ICT SECURITY’ (No Response). **Admin:** Treasury CSD registration issues (‘Click on edit, go through each tab’).

PSYCHOLOGICAL PROFILE: THE 'SAFE' SPACE

EVIDENCE: BRIGADE MANIFESTO EXCERPT

"Safety first security excavator machine fence unauthorised... orders booking business English CVS working formal oral present is form learner."

PROTECTION:
- Obsession with 'Guard', 'Safety', 'Defense', 'Shield'.

LEGITIMACY:
- Constant invocation of 'Affidavit', 'Transcript', 'Certificate', 'Official'.

AUTONOMY:
- Self-appointment as 'General' and 'Inspector' in the absence of state validation.

CASE FILE: COMPETENCE REVIEW – PAGE 13 **STATUS: REVIEWING EVIDENCE**

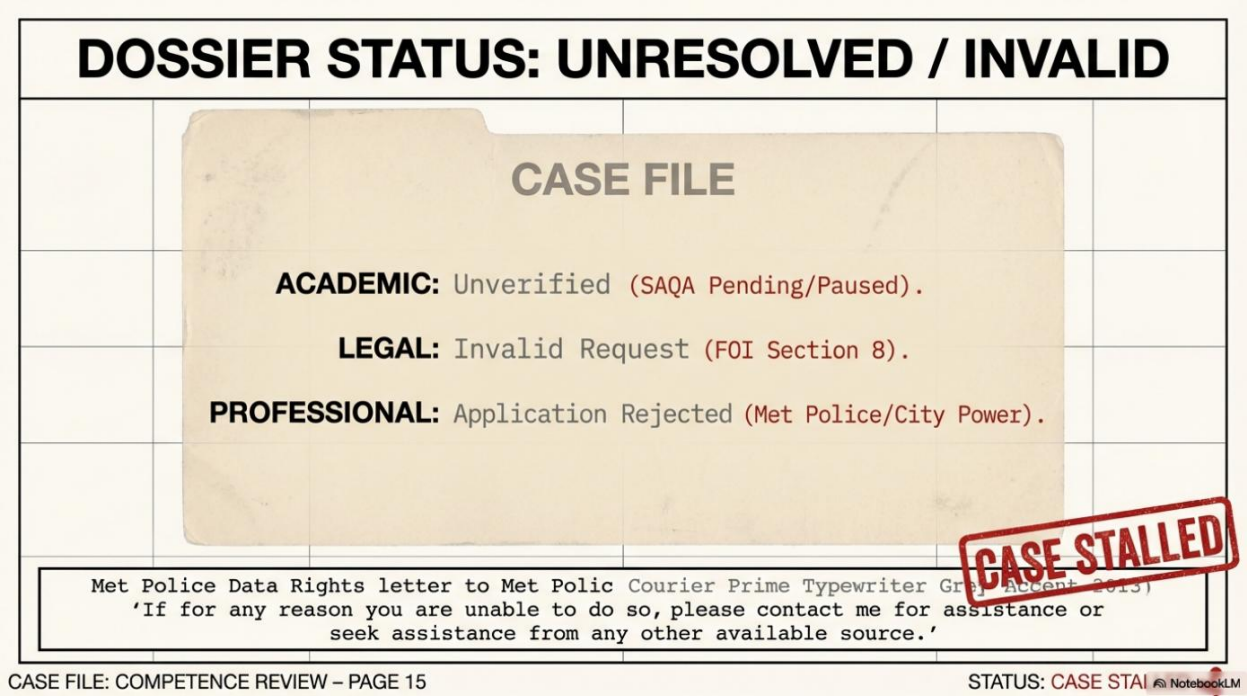
Forensic Dossier / Administrative Brutalism

ROOT CAUSE ANALYSIS: PROTOCOL MISMATCH

Met Police FOI	GitLab CI/CD	SAQA Online
'Section 8(1)(c) has not been met... unable to ascertain what information you are seeking.'	'yaml invalid error' (Attempts to upload PDFs as code configuration).	'System is not compatible with the iPhone... application for evaluation of foreign qualification is done online.'

NARRATIVE TAKEAWAY: The subject submits 'Analog' passion into 'Digital' and 'Legal' systems that require precise formatting he cannot provide.

CASE FILE: COMPETENCE REVIEW – PAGE 14 **STATUS:** REVIEWING EVIDEN


DOSSIER STATUS: UNRESOLVED / INVALID
CASE FILE
ACADEMIC: Unverified (SAQA Pending/Paused).
LEGAL: Invalid Request (FOI Section 8).
PROFESSIONAL: Application Rejected (Met Police/City Power).
CASE STALLED
Met Police Data Rights letter to Met Polic Courier Prime Typewriter Gre Accent 2013)
'If for any reason you are unable to do so, please contact me for assistance or seek assistance from any other available source.'
CASE FILE: COMPETENCE REVIEW – PAGE 15
STATUS: CASE STAI
NotebookLM

Navigating Official Requests: A Guide to Getting It Right

Why Requests Fail

Reason 1: The Request is Unclear

Your request can be deemed invaild if it doesn't clearly describe the information you need.

Reason 2: The Complaint is Outside the Mandate

The agency you contact may not have the legal authority to investigate your specific issue.

How to Submit a Valid Request

1. Clearly Describe the Information

Be specific about the information you are seeking to meet legal requirements (e.g., UK FOI Act Section 8(1)(c)).

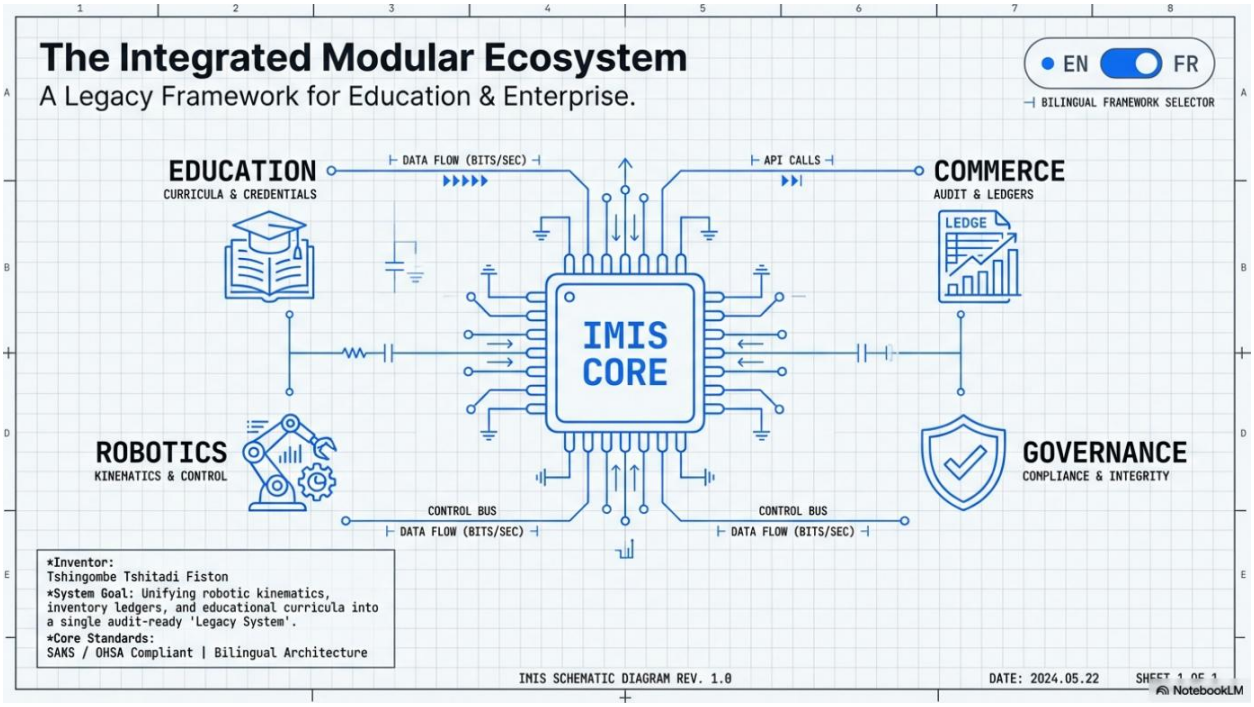
2. Provide Required Identification (For Personal Data)

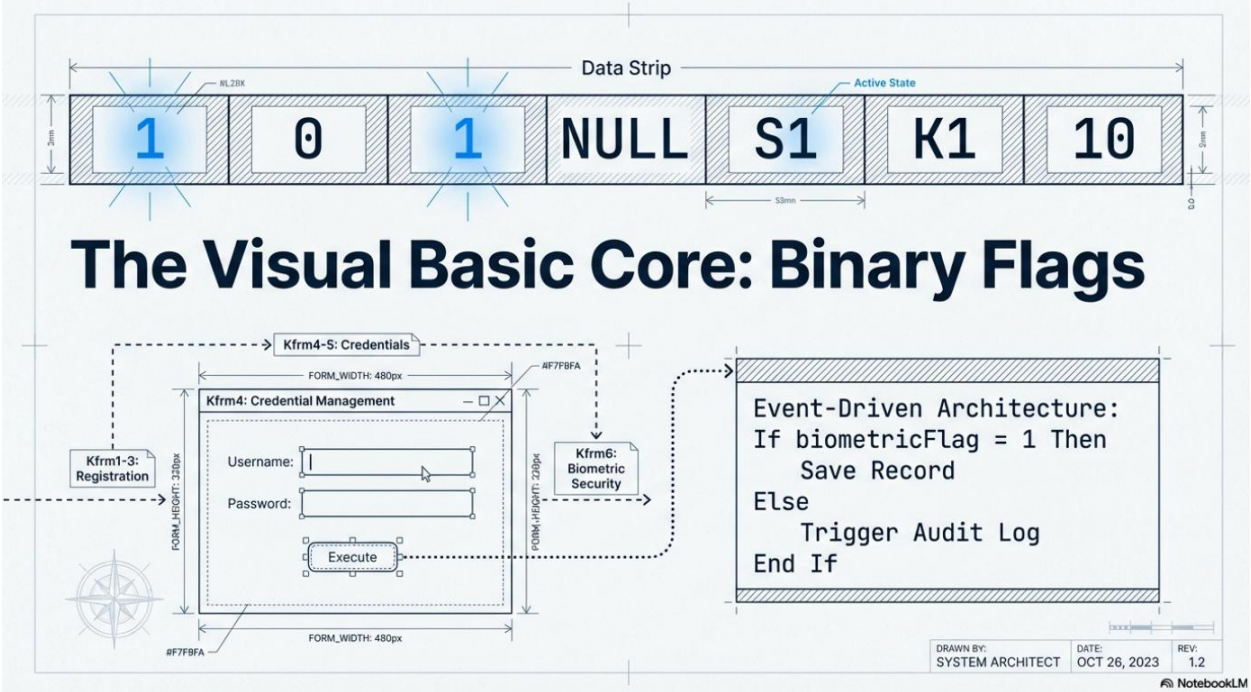
Include recent proof of address and official proof of ID like a passport or driver's license.

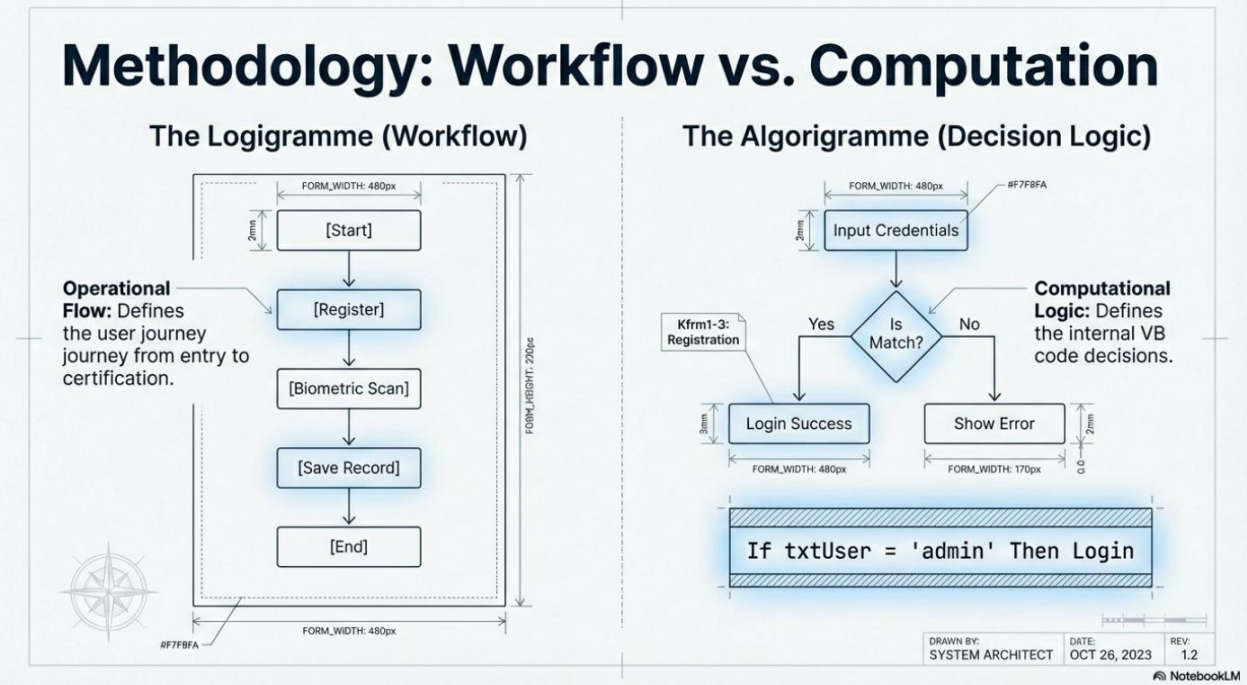
3. Follow the Correct Appeals Process

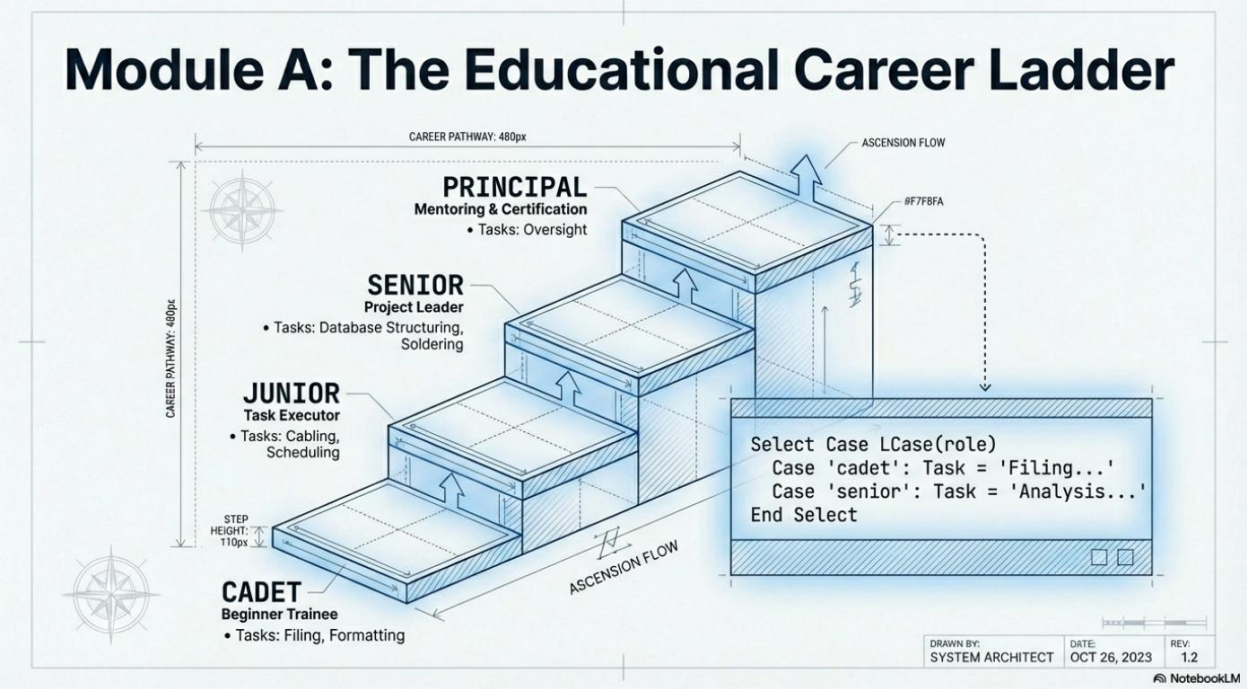
If rejected, you have the right to request an internal review or escalate to an Information Commissioner.

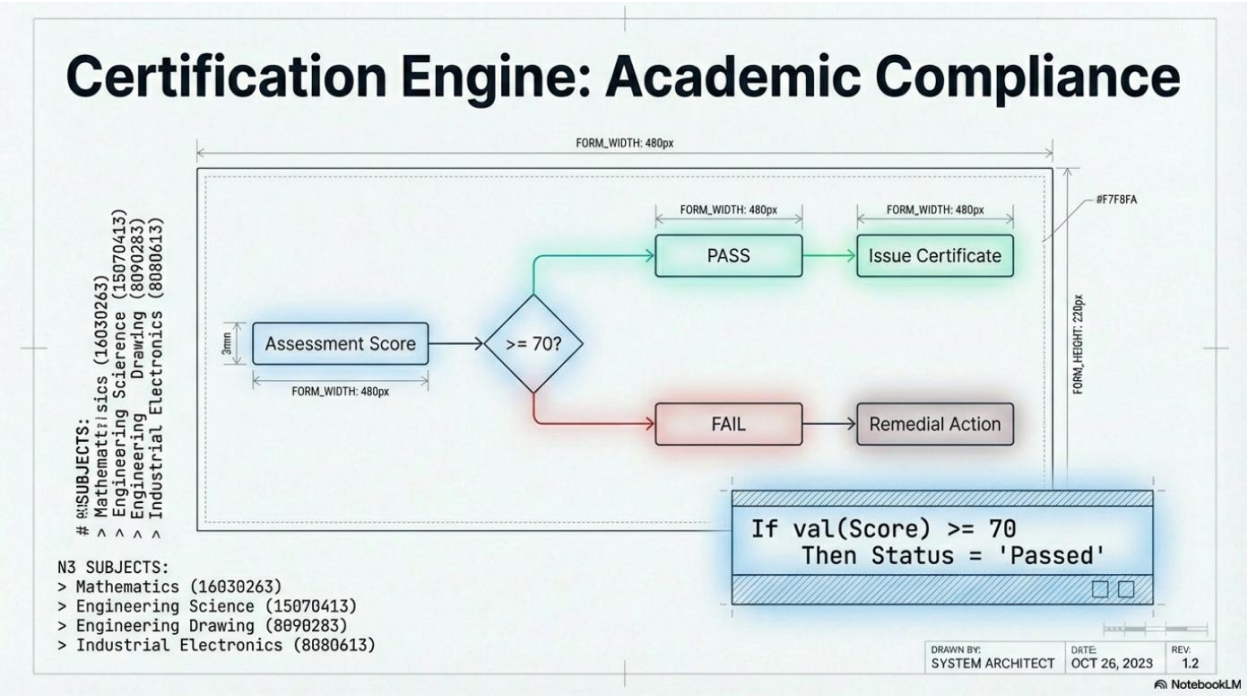
NotebookLM

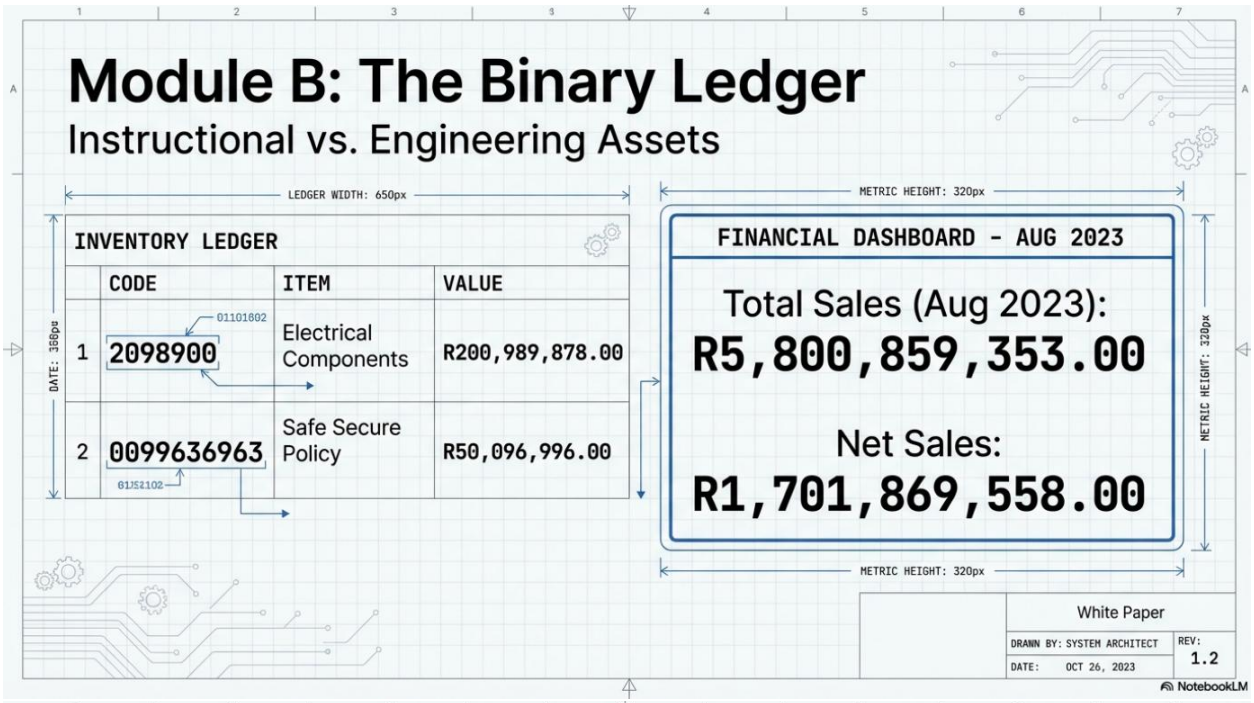

The Integrated Modular Ecosystem
A Legacy Framework for Education & Enterprise.
EN
FR
BILINGUAL FRAMEWORK SELECTOR
EDUCATION
CURRICULA & CREDENTIALS
DATA FLOW (BITS/SEC)
API CALLS
COMMERCE
AUDIT & LEDGERS
LEDGE
IMIS CORE
ROBOTICS
KINEMATICS & CONTROL
GOVERNANCE
COMPLIANCE & INTEGRITY
CONTROL BUS
DATA FLOW (BITS/SEC)
CONTROL BUS
DATA FLOW (BITS/SEC)
*Inventor:
Tshingombe Tshitadi Fiston
*System Goal: Unifying robotic kinematics, inventory ledgers, and educational curricula into a single audit-ready 'Legacy System'.
*Core Standards:
SANS / OHSA Compliant | Bilingual Architecture
IMIS SCHEMATIC DIAGRAM REV. 1.0
DATE: 2024.05.22
NotebookLM

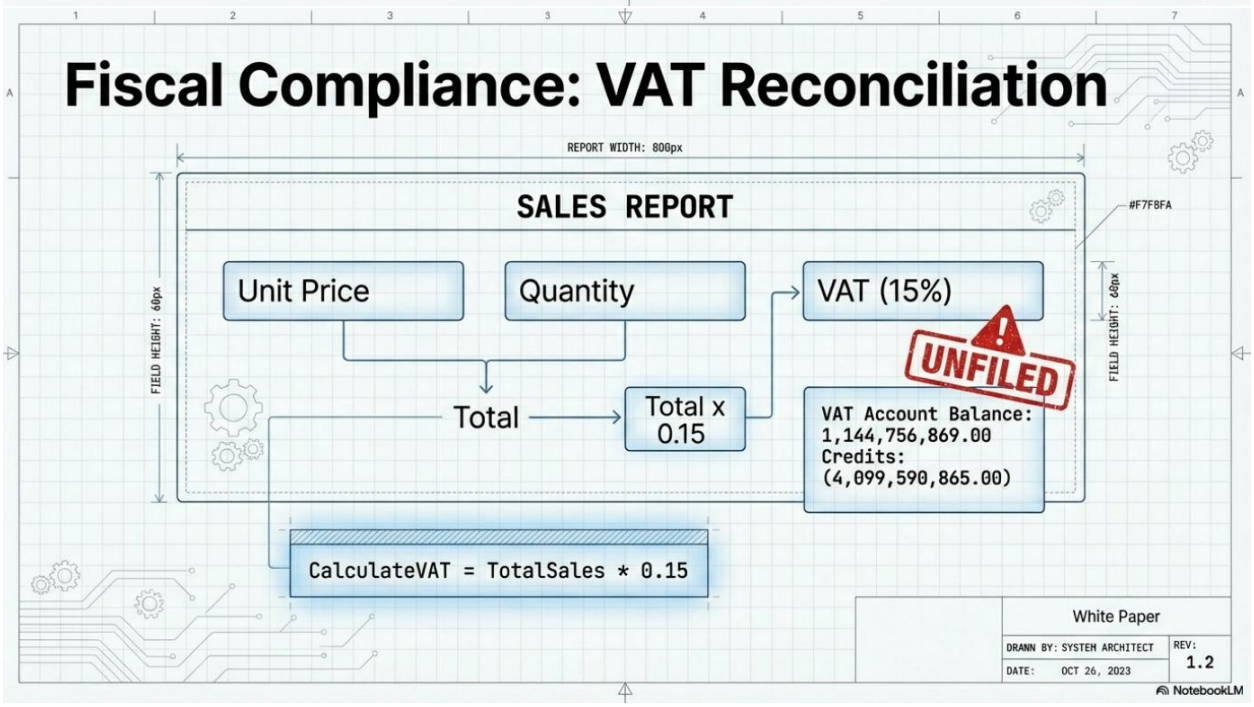

Data Strip
Active State
1
0
1
NULL
S1
K1
10
The Visual Basic Core: Binary Flags
Kfrm4-5: Credentials
FORM_WIDTH: 480px
#F7FBFA
Kfrm4: Credential Management
Kfrm1-3: Registration
Username:
Password:
Execute
Kfrm6: Biometric Security
FORM_HEIGHT: 330px
FORM_HEIGHT: 220px
FORM_WIDTH: 480px
#F7FBFA
Event-Driven Architecture:
If biometricFlag = 1 Then
Save Record
Else
Trigger Audit Log
End If
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

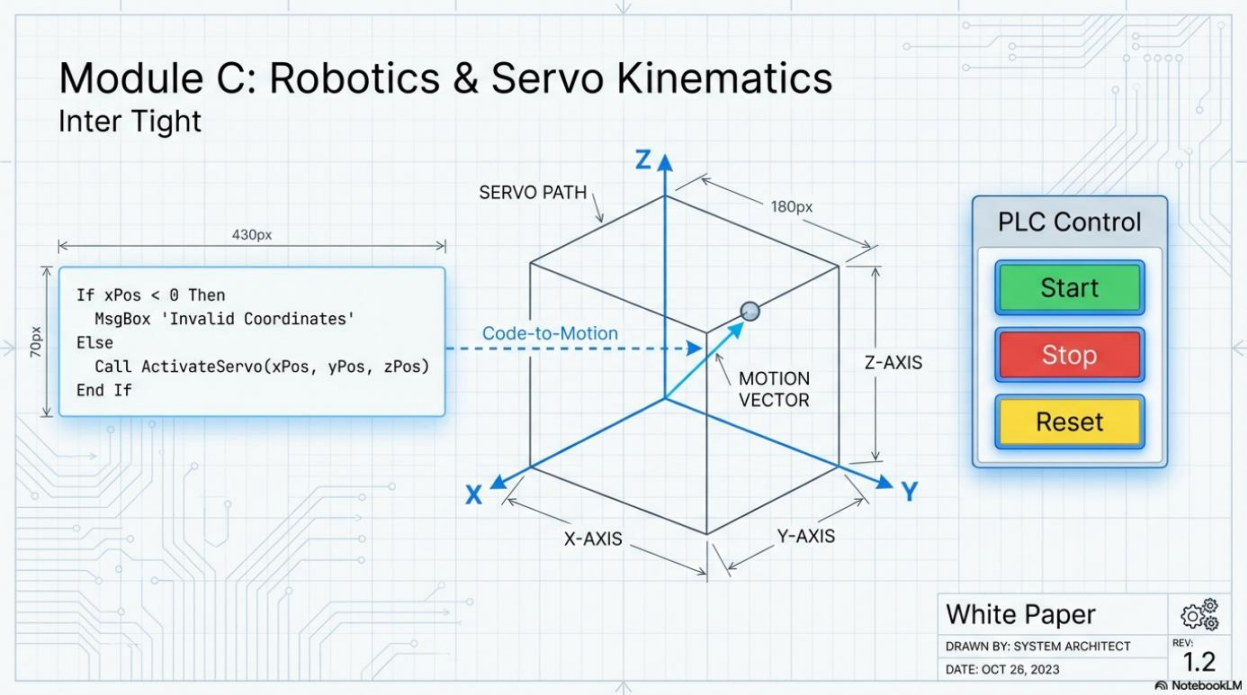

Methodology: Workflow vs. Computation
The Logigramme (Workflow)
The Algorigramme (Decision Logic)
FORM_WIDTH: 480px
[Start]
[Register]
[Biometric Scan]
[Save Record]
[End]
FORM_HEIGHT: 220px
#F7FBFA
Operational Flow: Defines the user journey journey from entry to certification.
Input Credentials
Kfrm1-3: Registration
Yes
Is Match?
No
Login Success
Show Error
FORM_WIDTH: 170px
Computational Logic: Defines the internal VB code decisions.
If txtUser = 'admin' Then Login
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

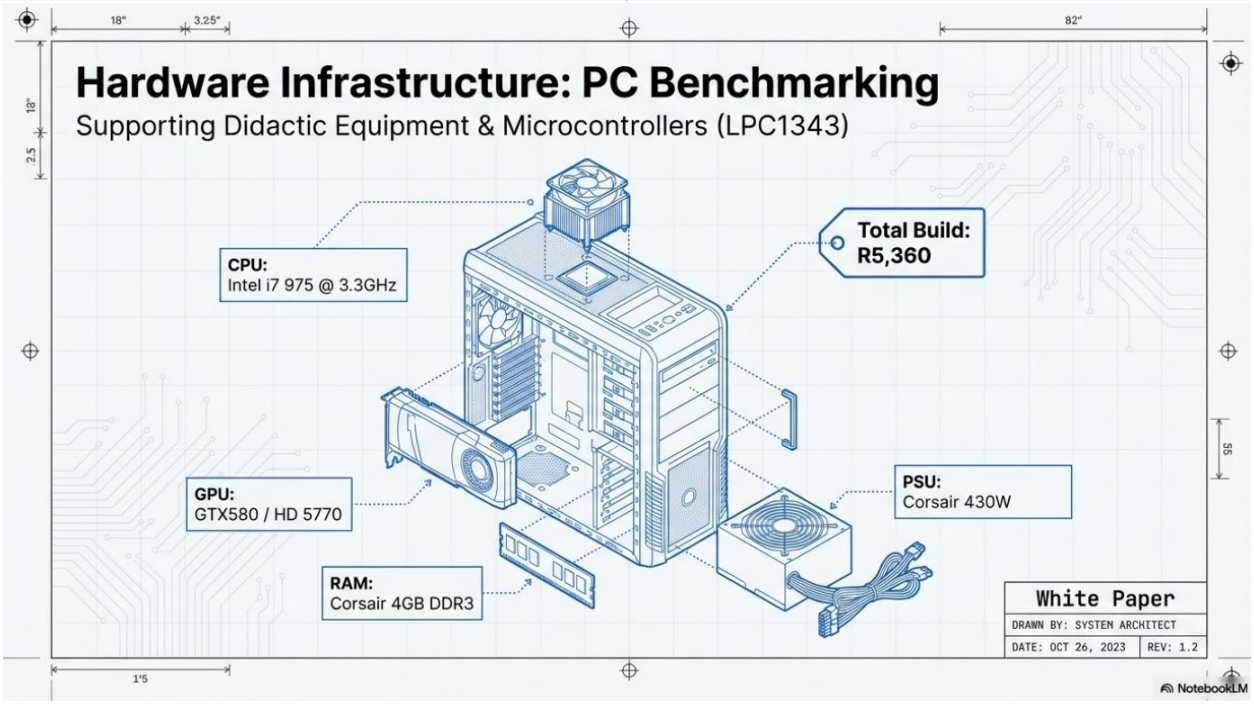

Module A: The Educational Career Ladder
CAREER PATHWAY: 480px
CAREER PATHWAY: 400px
ASCENSION FLOW
#F7F8FA
PRINCIPAL
Mentoring & Certification
• Tasks: Oversight
SENIOR
Project Leader
• Tasks: Database Structuring, Soldering
JUNIOR
Task Executor
• Tasks: Cabling, Scheduling
CADET
Beginner Trainee
• Tasks: Filing, Formatting
STEP HEIGHT: 110px
ASCENSION FLOW
Select Case LCase(role)
Case 'cadet': Task = 'Filing...'
Case 'senior': Task = 'Analysis...'
End Select
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

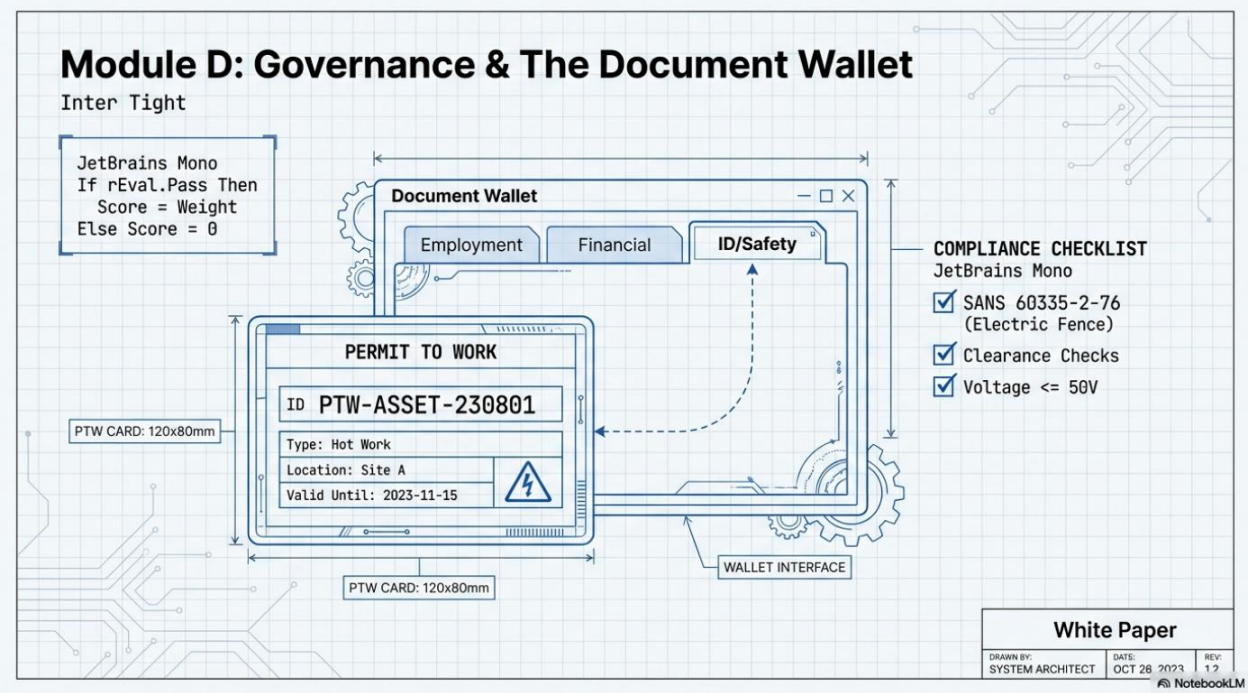

Certification Engine: Academic Compliance
FORM_WIDTH: 480px
FORM_WIDTH: 480px
FORM_WIDTH: 480px
#F7F8FA
PASS
Issue Certificate
Assessment Score
>= 70?
3mm
FORM_WIDTH: 480px
FAIL
Remedial Action
FORM_HEIGHT: 220px
N3 SUBJECTS:
> Mathematics (16030263)
> Engineering Science (15070413)
> Engineering Drawing (8090283)
> Industrial Electronics (8080613)
If val(Score) >= 70
Then Status = 'Passed'
N3 SUBJECTS:
> Mathematics (16030263)
> Engineering Science (15070413)
> Engineering Drawing (8090283)
> Industrial Electronics (8080613)
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

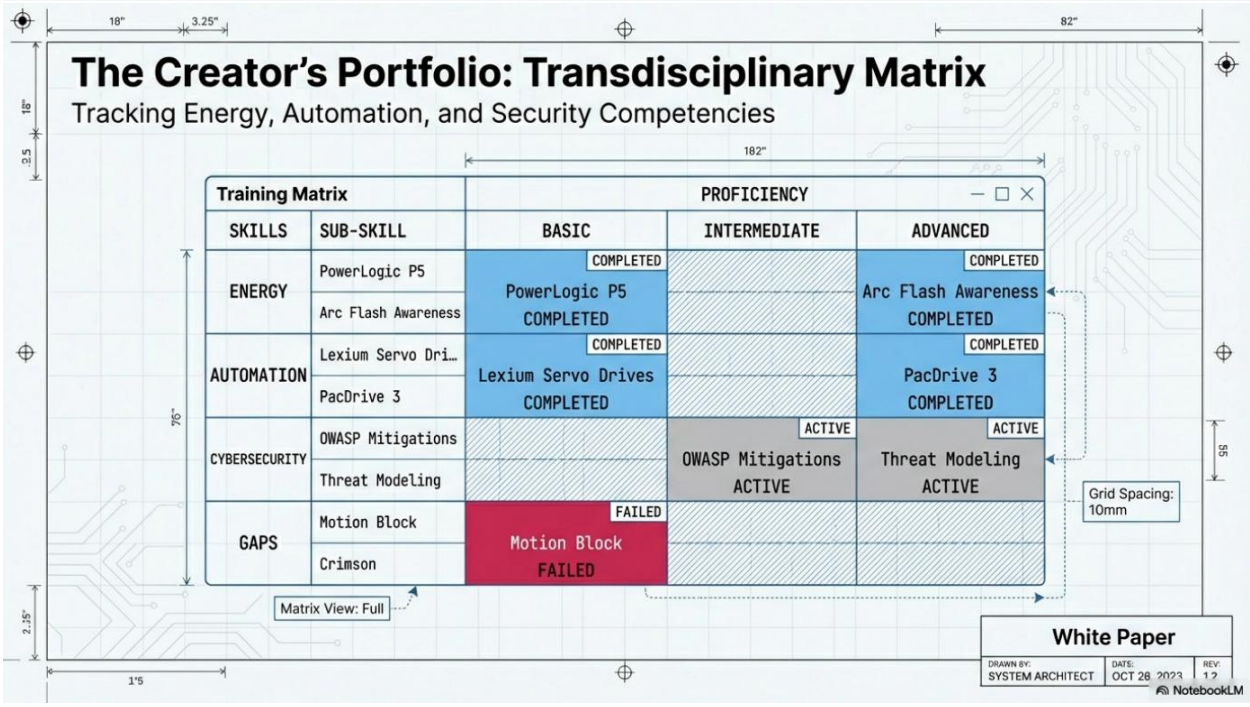

Module B: The Binary Ledger
Instructional vs. Engineering Assets
LEDGER WIDTH: 650px
INVENTORY LEDGER
CODE
ITEM
VALUE
1
2098900
Electrical Components
R200,989,878.00
2
0099636963
Safe Secure Policy
R50,096,996.00
METRIC HEIGHT: 320px
FINANCIAL DASHBOARD - AUG 2023
Total Sales (Aug 2023):
R5,800,859,353.00
Net Sales:
R1,701,869,558.00
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

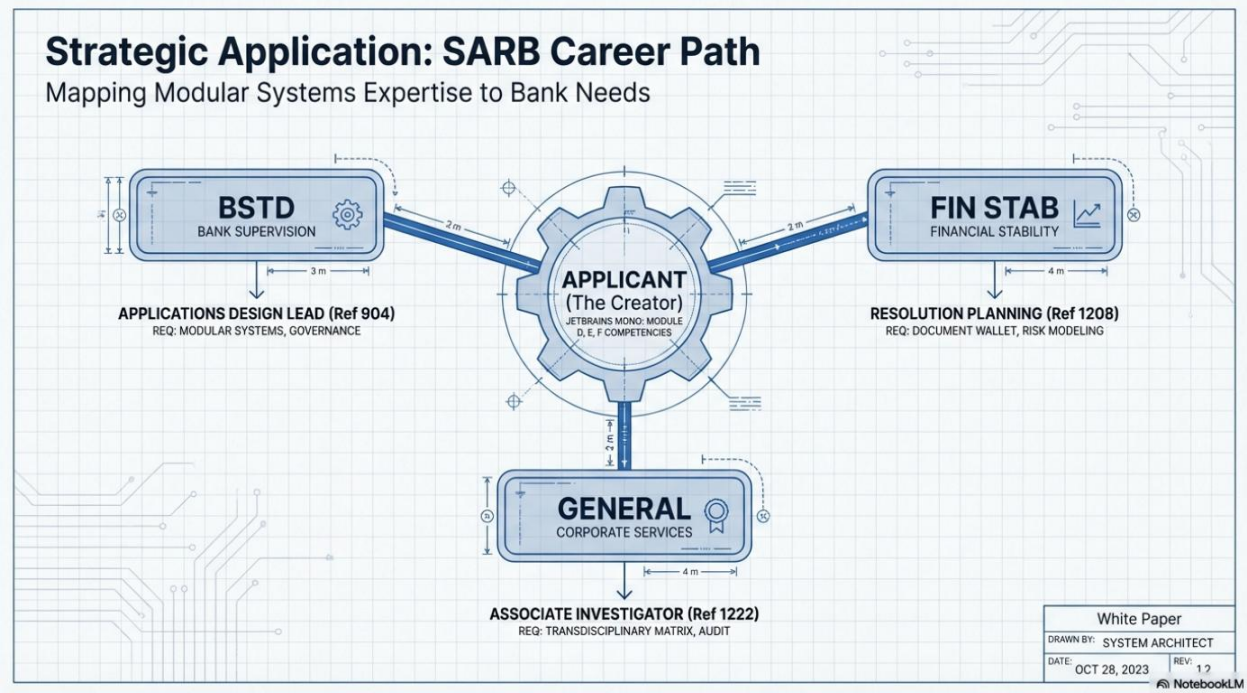

Fiscal Compliance: VAT Reconciliation
REPORT WIDTH: 800px
SALES REPORT
Unit Price
Quantity
VAT (15%)
Total
Total x 0.15
UNFILED
VAT Account Balance: 1,144,756,869.00
Credits: (4,099,590,865.00)
CalculateVAT = TotalSales * 0.15
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

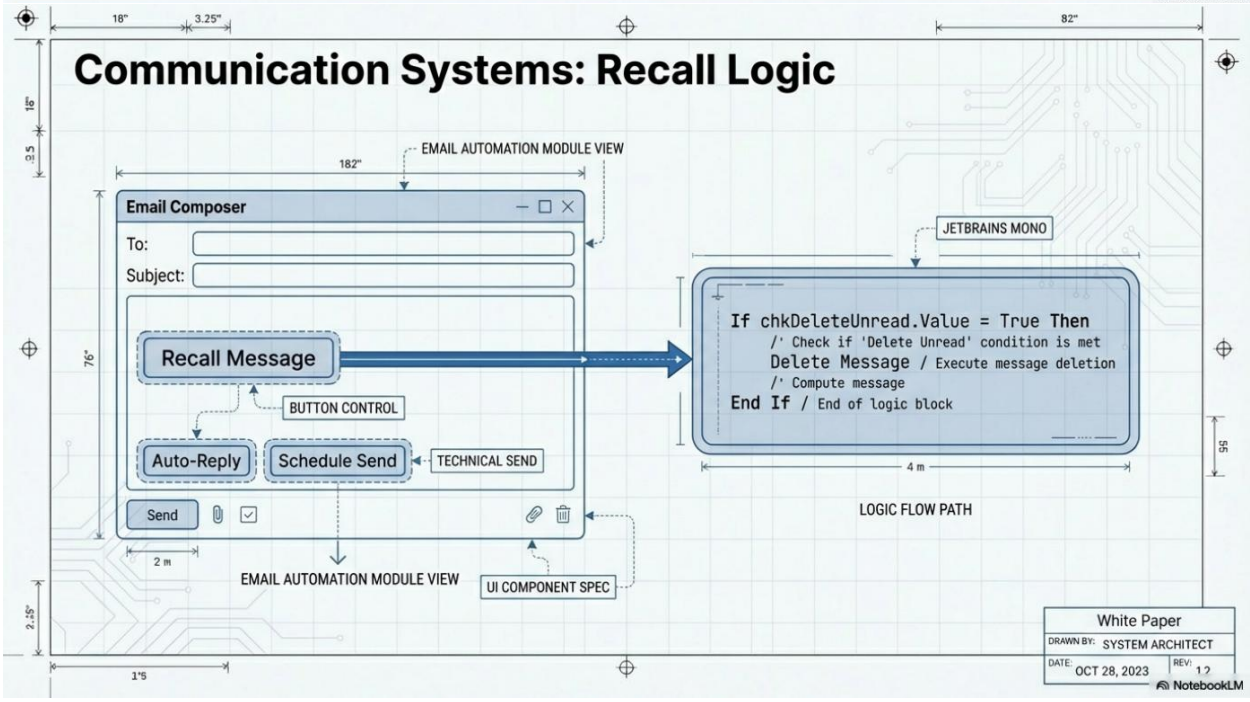

Module C: Robotics & Servo Kinematics
Inter Tight
430px
70px
If xPos < 0 Then
MsgBox 'Invalid Coordinates'
Else
Call ActivateServo(xPos, yPos, zPos)
End If
Code-to-Motion
SERVO PATH
180px
Z
X
Y
MOTION VECTOR
Z-AXIS
X-AXIS
Y-AXIS
PLC Control
Start
Stop
Reset
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

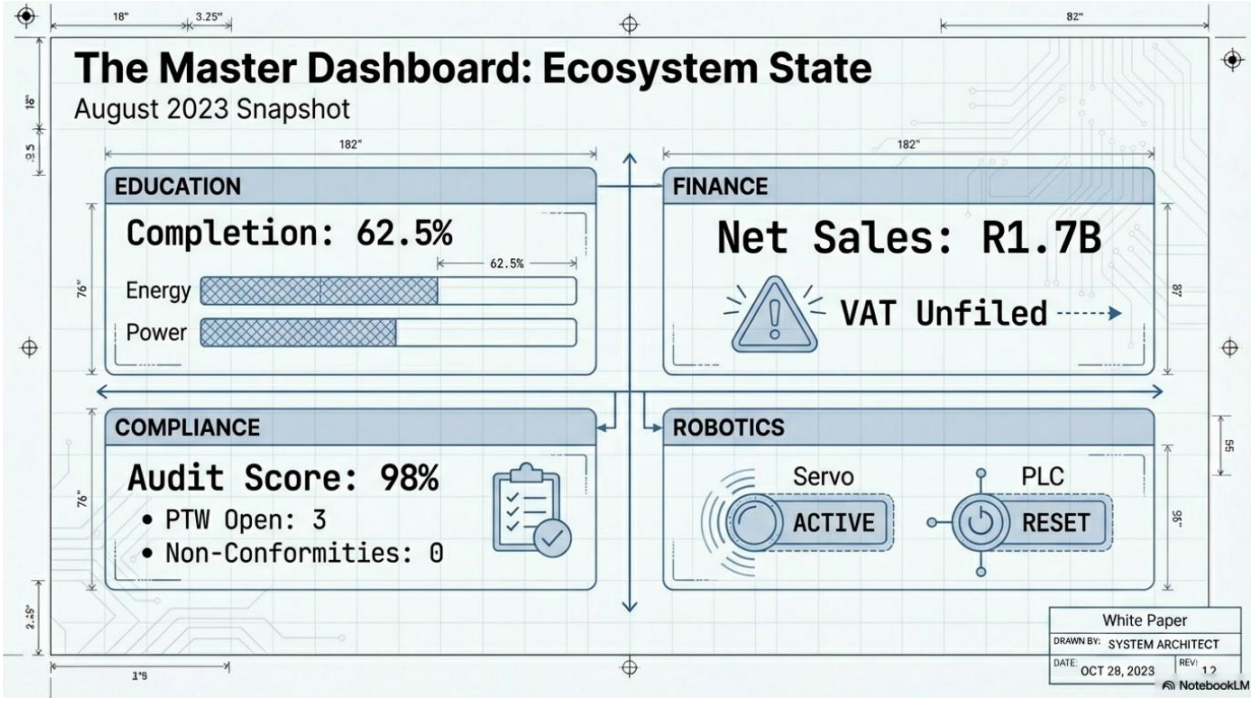

Hardware Infrastructure: PC Benchmarking
Supporting Didactic Equipment & Microcontrollers (LPC1343)
CPU:
Intel i7 975 @ 3.3GHz
Total Build:
R5,360
GPU:
GTX580 / HD 5770
PSU:
Corsair 430W
RAM:
Corsair 4GB DDR3
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 26, 2023
REV: 1.2
NotebookLM

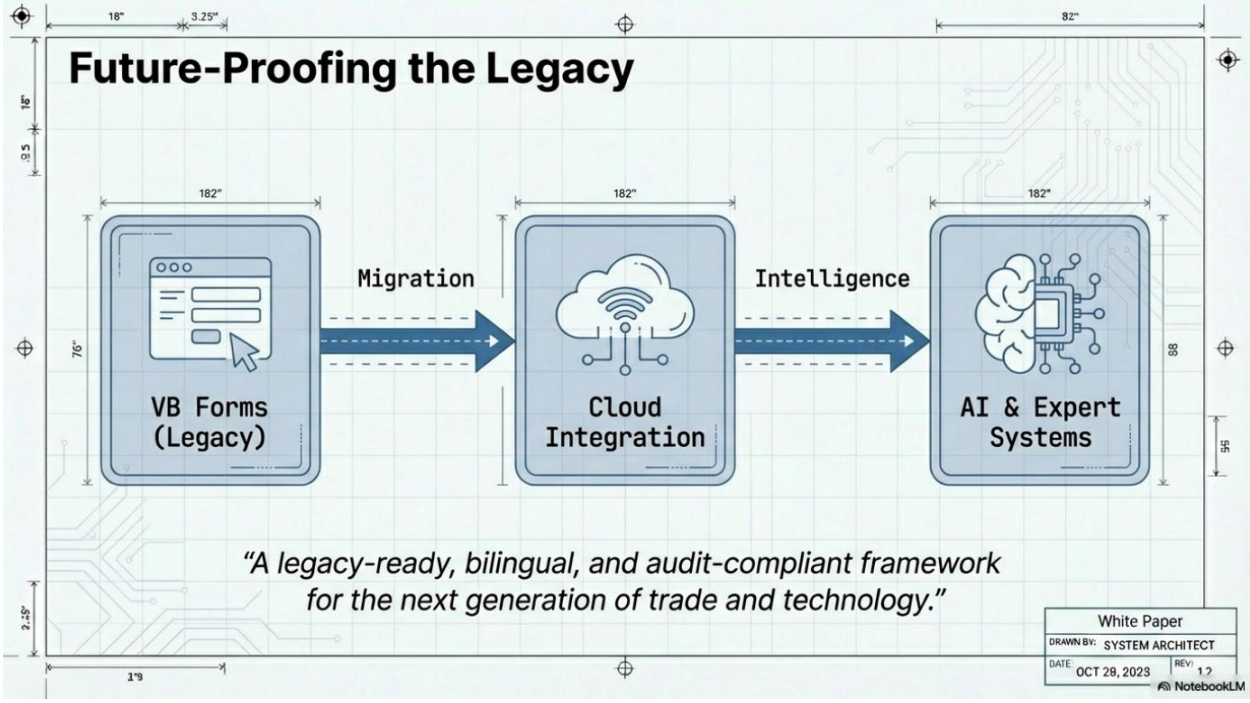

Module D: Governance & The Document Wallet
Inter Tight
JetBrains Mono
If rEval.Pass Then
Score = Weight
Else Score = 0
Document Wallet
Employment
Financial
ID/Safety
COMPLIANCE CHECKLIST
JetBrains Mono
SANS 60335-2-76
(Electric Fence)
Clearance Checks
Voltage <= 50V
PERMIT TO WORK
ID PTW-ASSET-230801
Type: Hot Work
Location: Site A
Valid Until: 2023-11-15
PTW CARD: 120x80mm
PTW CARD: 120x80mm
WALLET INTERFACE
White Paper
DRAWN BY:
SYSTEM ARCHITECT
DATE:
OCT 26, 2023
REV:
1.2
NotebookLM


The Creator's Portfolio: Transdisciplinary Matrix
Tracking Energy, Automation, and Security Competencies
Training Matrix
PROFICIENCY
SKILLS
SUB-SKILL
BASIC
INTERMEDIATE
ADVANCED
ENERGY
PowerLogic P5
Arc Flash Awareness
AUTOMATION
Lexium Servo Dri…
PacDrive 3
CYBERSECURITY
OWASP Mitigations
Threat Modeling
GAPS
Motion Block
Crimson
COMPLETED
PowerLogic P5
COMPLETED
COMPLETED
Arc Flash Awareness
COMPLETED
COMPLETED
Lexium Servo Drives
COMPLETED
COMPLETED
PacDrive 3
COMPLETED
ACTIVE
OWASP Mitigations
ACTIVE
ACTIVE
Threat Modeling
ACTIVE
FAILED
Motion Block
FAILED
Grid Spacing:
10mm
Matrix View: Full
White Paper
DRAWN BY:
SYSTEM ARCHITECT
DATE:
OCT 26, 2023
REV:
1.2
NotebookLM


Strategic Application: SARB Career Path
Mapping Modular Systems Expertise to Bank Needs
BSTD
BANK SUPERVISION
APPLICANT
(The Creator)
JETBRAINS MONO: MODULE D, E, F COMPETENCIES
FIN STAB
FINANCIAL STABILITY
GENERAL
CORPORATE SERVICES
APPLICATIONS DESIGN LEAD (Ref 904)
REQ: MODULAR SYSTEMS, GOVERNANCE
RESOLUTION PLANNING (Ref 1208)
REQ: DOCUMENT WALLET, RISK MODELING
ASSOCIATE INVESTIGATOR (Ref 1222)
REQ: TRANSDISCIPLINARY MATRIX, AUDIT
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 28, 2023
REV: 1.2
NotebookLM


Communication Systems: Recall Logic
EMAIL AUTOMATION MODULE VIEW
Email Composer
To:
Subject:
Recall Message
BUTTON CONTROL
Auto-Reply
Schedule Send
TECHNICAL SEND
Send
EMAIL AUTOMATION MODULE VIEW
UI COMPONENT SPEC
JETBRAINS MONO
If chkDeleteUnread.Value = True Then
' Check if 'Delete Unread' condition is met
Delete Message / Execute message deletion
' Compute message
End If / End of logic block
LOGIC FLOW PATH
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 28, 2023
REV: 1.2
NotebookLM


The Master Dashboard: Ecosystem State
August 2023 Snapshot
EDUCATION
Completion: 62.5%
62.5%
Energy
Power
FINANCE
Net Sales: R1.7B
VAT Unfiled
COMPLIANCE
Audit Score: 98%
• PTW Open: 3
• Non-Conformities: 0
ROBOTICS
Servo
ACTIVE
PLC
RESET
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 28, 2023
NotebookLM


Future-Proofing the Legacy
VB Forms (Legacy)
Migration
Cloud Integration
Intelligence
AI & Expert Systems
"A legacy-ready, bilingual, and audit-compliant framework for the next generation of trade and technology."
White Paper
DRAWN BY: SYSTEM ARCHITECT
DATE: OCT 28, 2023
NotebookLM

A Modular VB Framework for Education & Industry

Advanced System Extensions
Robotic & PLC Control
Interface controls kinematic movement (X, Y, Z axes) and PLC commands.
Career Progression Tracking
Manages career levels from Cadet to Junior to Senior with specific tasks.
Senior
Junior
Cadet
Modular
Bilingual
Compliance Audits
Audit-Ready Design Principles
The entire framework is built to be modular, bilingual, and ready for compliance audits.
Core System Modules
Name
Contact Details
Username/Password
Password Security Validate
1. Initial Registration
Captures user name, ID, and contact details via Form Kfrm1.
2. Login & Credential Management
Validates username/password and includes password recovery options.
3. Biometric Security Validation
Integrates a final biometric scan to secure the user record.
NotebookLM

The Integrated Engineering Framework

Bridging Technical Mastery & Systemic Resilience

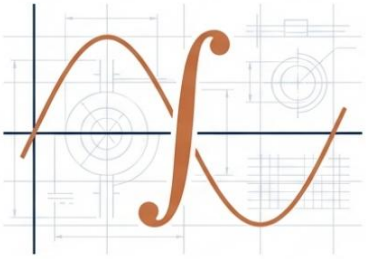
A Modular, Credential-Linked Strategy for Vocational Electrical Engineering in South Africa.

Based on the research and portfolio of Tshingombe Tshitadi.

The Big Picture: A Tale of Two Systems

The Technical Ideal:

The Laws of Physics



- Precision & Predictability
- Governed by Ohm's Law & Calculus
- Zero Tolerance for Error (MIL-STD)
- Output: Clean Power

The Administrative Reality:

The Laws of Bureaucracy

- Chaos & Friction
- Governed by Backlogs & Irregularities
- High Tolerance for Delay
- Output: Administrative Impedance

Core Insight: Success requires mastering high-voltage engineering AND high-resistance administration

NotebookLM

Systemic Impedance: The Blockages

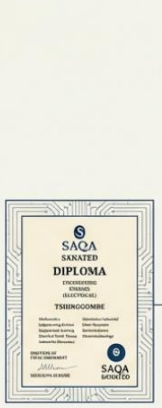
SAQA
NATED
STATEMENT OF RESULTS
Irregularity Material Final
DIRECTOR: ASSESSMENT
N DIPLOMA
ELECTRICAL ENGINEERING
TSHINGOMBE TSHITADI
The participent obtained Certificates N1, N2, N3, N4, N5, and N6 in the Engineering Studies majoring in the subjes-ts listed below:

- **Exam Irregularities**: Nov 2021 results invalidated (Electrical Trade Theory N3).
- **Certification Backlogs**: Indefinite delays at Shalom Technical College & St Peace College.
- **Fragmented Standards**: Disconnects between SAQA and foreign qualification recognition.

"When administration fails, technical potential is grounded."

NotebookLM

The Core Architecture: NATED N4–N6



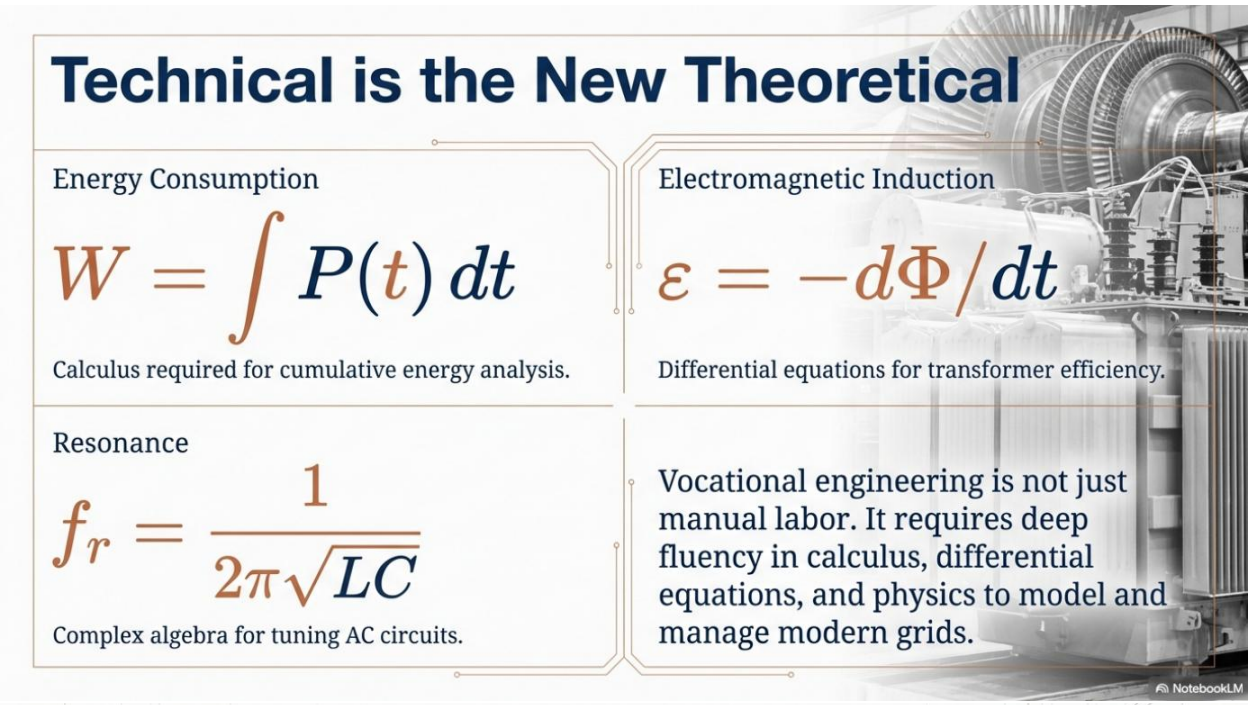
Advanced Diploma (N6)
Circuit Analysis, Control Systems, Power Protection, Advanced Math.

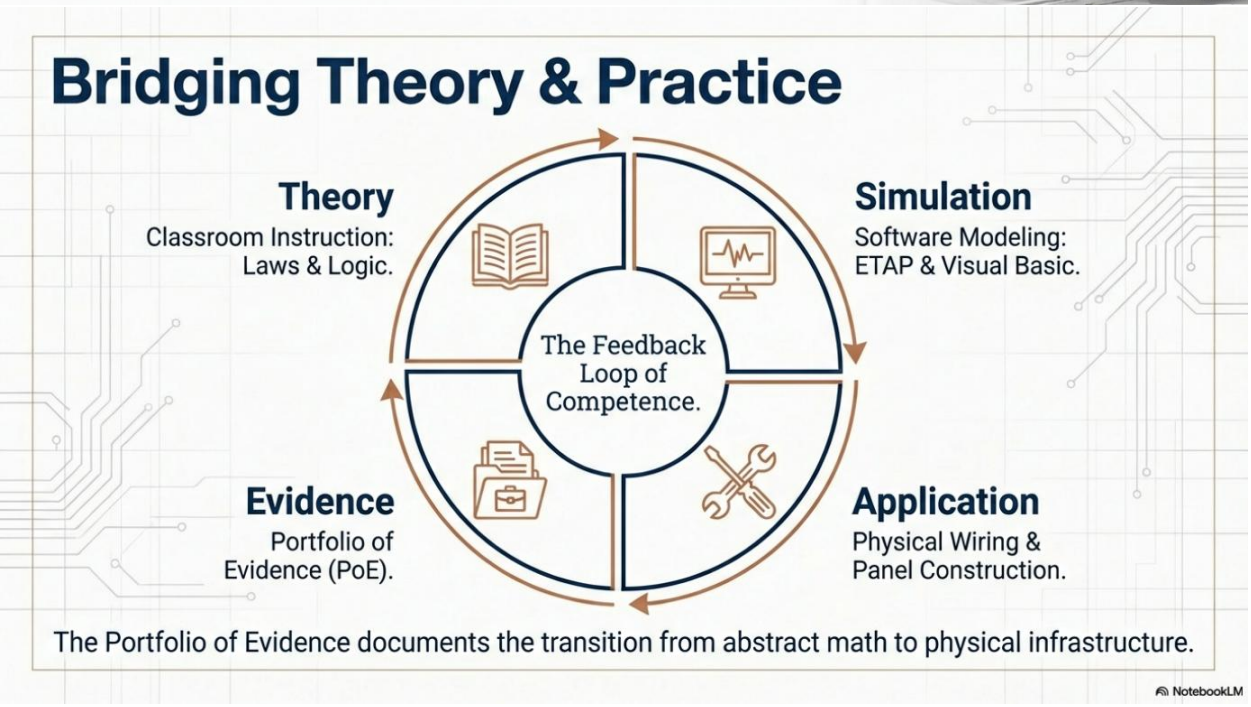
Intermediate Core (N4–N5)
AC Theory, Digital Systems, Transformers, Electrotechnics.

Foundation (Phasing Out)
N1 – N3: Industrial Electronics, Engineering Drawings.
(Phasing out Jan 2024 for modern alignment).

NQF Level Progression

NotebookLM


Technical is the New Theoretical
Energy Consumption
$W = \int P(t)\,dt$
Calculus required for cumulative energy analysis.
Electromagnetic Induction
$\varepsilon = -d\Phi/dt$
Differential equations for transformer efficiency.
Resonance
$f_r = \frac{1}{2\pi\sqrt{LC}}$
Complex algebra for tuning AC circuits.
Vocational engineering is not just manual labor. It requires deep fluency in calculus, differential equations, and physics to model and manage modern grids.
NotebookLM


Bridging Theory & Practice
Theory
Classroom Instruction: Laws & Logic.
Simulation
Software Modeling: ETAP & Visual Basic.
The Feedback Loop of Competence.
Evidence
Portfolio of Evidence (PoE).
Application
Physical Wiring & Panel Construction.
The Portfolio of Evidence documents the transition from abstract math to physical infrastructure.
NotebookLM

The Digital Upgrade: 4IR Integration

The Digital Toolbelt

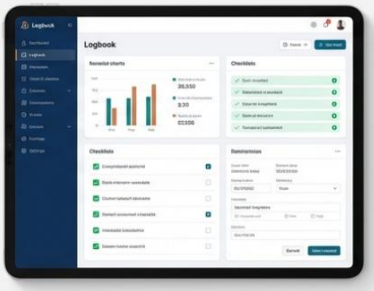
- **Microsoft Azure & AI:** Predictive maintenance & data analysis.
- **GitHub:** Version control for engineering code (VBA/Python).
- **Blockchain:** Immutable credentialing.

The modern technician is a hybrid: Part Electrician, Part Data Scientist.

NotebookLM

Audit-Ready Governance

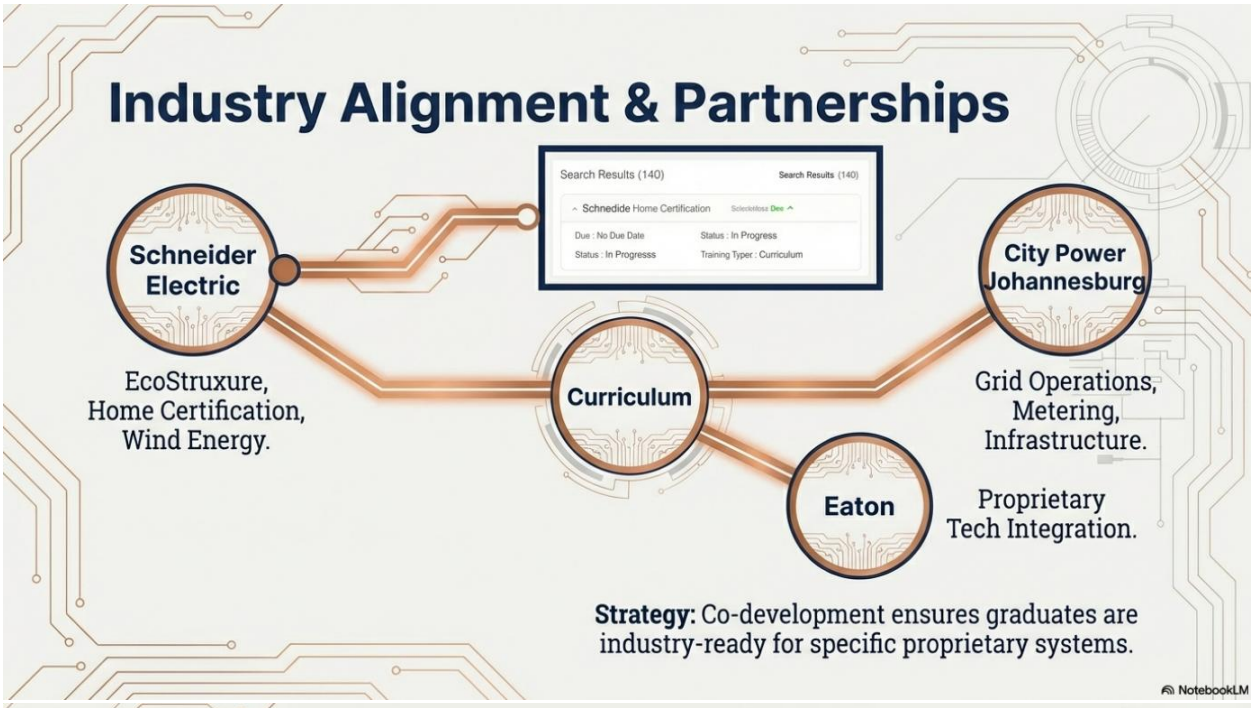
Legacy Paper Trails

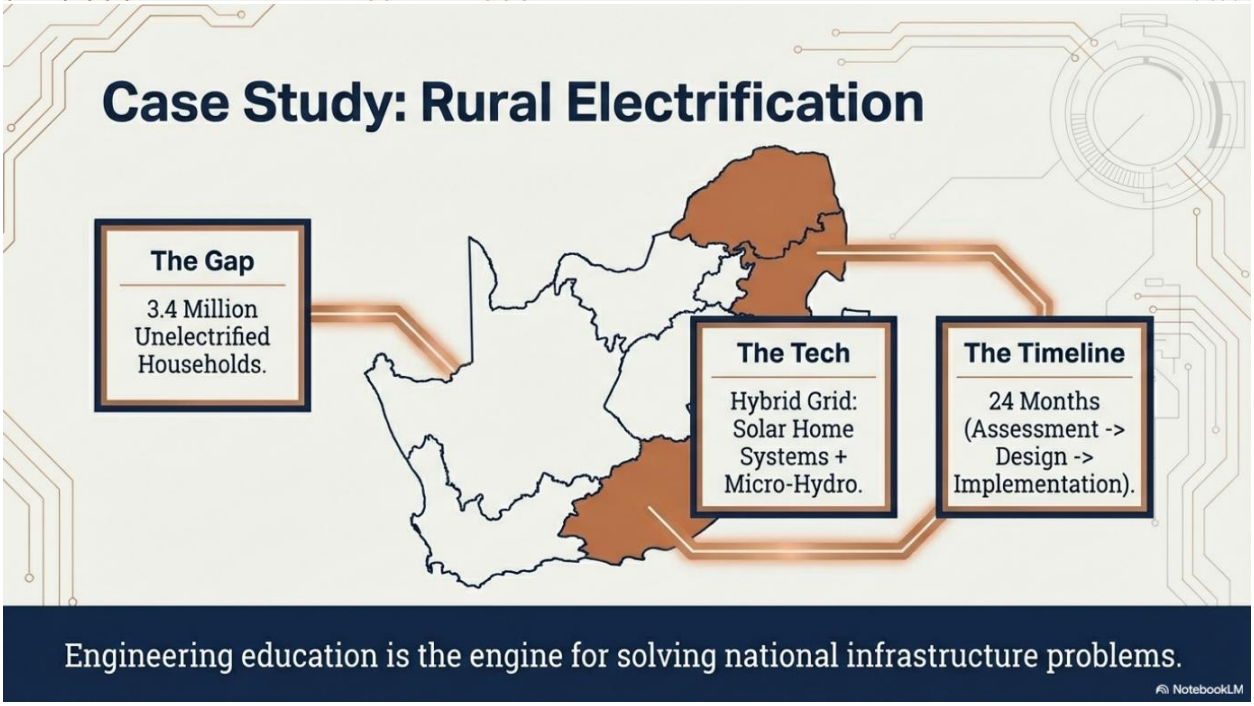


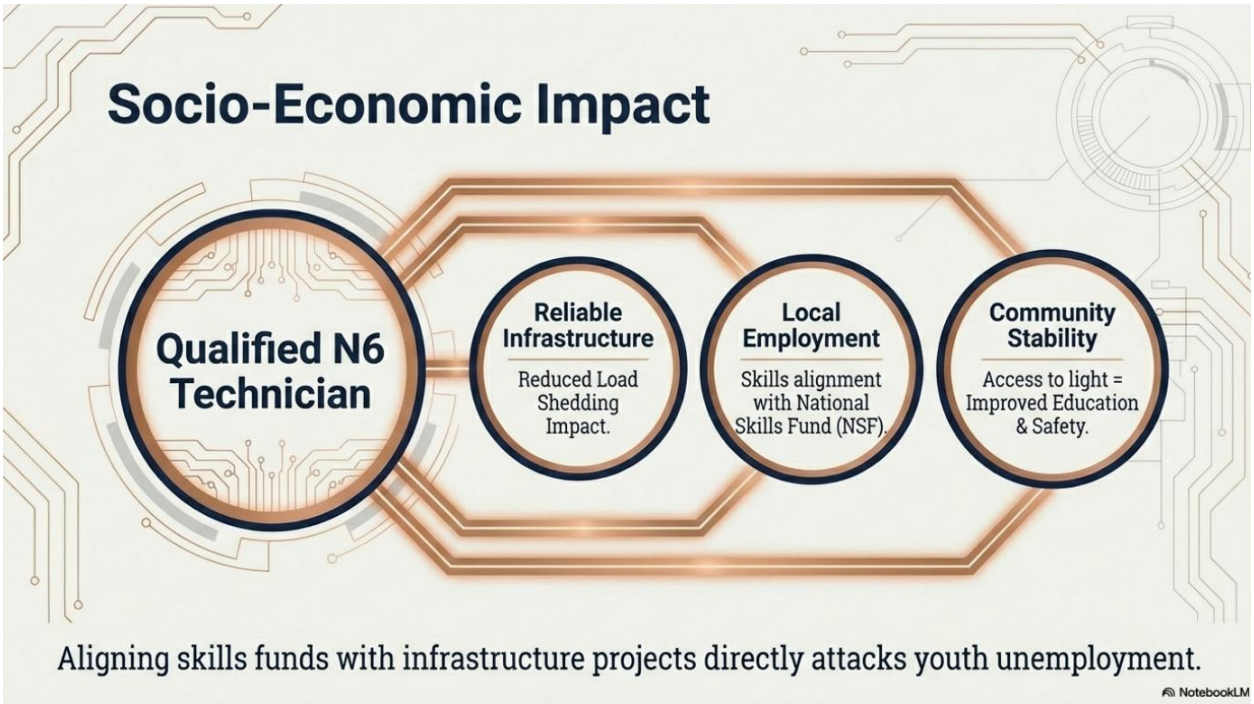
Digital Logbooks

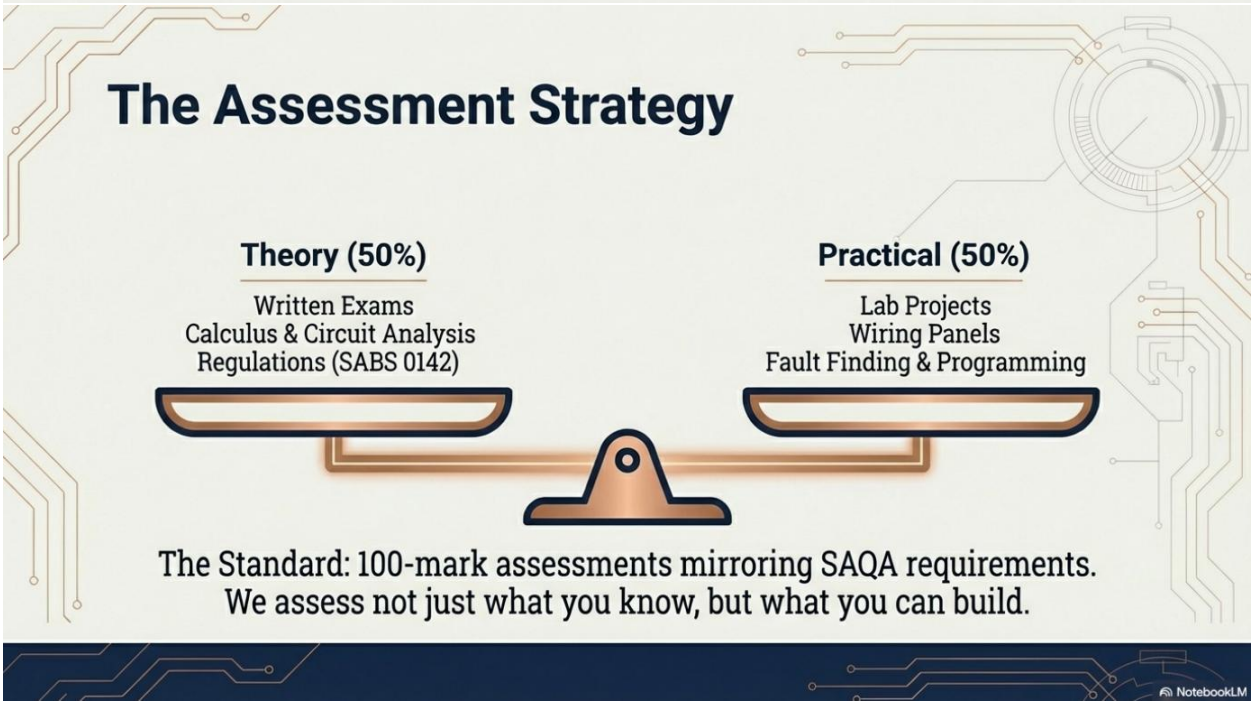
- Traceable & Immutable
- Compliance with SAQA, MERSETA, ETDP, QCTO
- Transparent Assessment Criteria

NotebookLM


Industry Alignment & Partnerships
Search Results (140)
Search Results (140)
Schnedide Home Certification
Due : No Due Date
Status : In Progress
Status : In Progresss
Training Typer : Curriculum
Schneider Electric
EcoStruxure, Home Certification, Wind Energy.
Curriculum
City Power Johannesburg
Grid Operations, Metering, Infrastructure.
Eaton
Proprietary Tech Integration.
Strategy: Co-development ensures graduates are industry-ready for specific proprietary systems.
NotebookLM


Case Study: Rural Electrification
The Gap
3.4 Million Unelectrified Households.
The Tech
Hybrid Grid: Solar Home Systems + Micro-Hydro.
The Timeline
24 Months (Assessment -> Design -> Implementation).
Engineering education is the engine for solving national infrastructure problems.
NotebookLM


Socio-Economic Impact
Qualified N6 Technician
Reliable Infrastructure
Reduced Load Shedding Impact.
Local Employment
Skills alignment with National Skills Fund (NSF).
Community Stability
Access to light = Improved Education & Safety.
Aligning skills funds with infrastructure projects directly attacks youth unemployment.
NotebookLM


The Assessment Strategy
Theory (50%)
Written Exams
Calculus & Circuit Analysis
Regulations (SABS 0142)
Practical (50%)
Lab Projects
Wiring Panels
Fault Finding & Programming
The Standard: 100-mark assessments mirroring SAQA requirements.
We assess not just what you know, but what you can build.
NotebookLM

Bureaucratic Resilience

Personal Audit Trails

Maintain physical and digital copies of every result, logbook, and registration form.

System Navigation

Deep understanding of NQF levels, articulation pathways, and regulatory bodies.

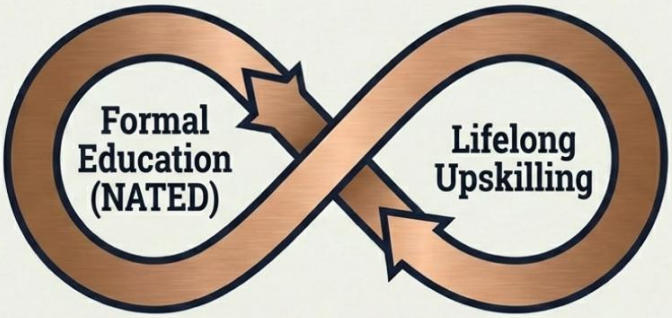
Persistence

Developing the patience to withstand 'pending' statuses and administrative delays.

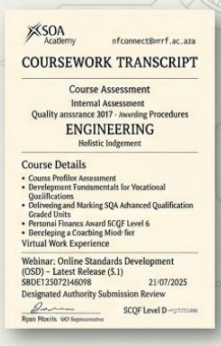
"The real final boss is bureaucracy. Your career is a living document that requires constant defense."

NotebookLM

Continuous Professional Development (CPD)



- Alison: Diplomas in Electrical Studies
- Atlantic International University (AIU)
- Microsoft Learn


SOA Academy

COURSEWORK TRANSCRIPT

Course Assessment
Internal Assessment
Quality assurance 3017 · Awarding Procedures

ENGINEERING
Holistic Judgement

Course Details
- Course Profiler Assessment
- Development Fundamentals for Vocational Qualifications
- Delivering and Marking SQA Advanced Qualification Graded Units
- Personal Finance Award SCQF Level 6
- Developing a Coaching Mindset

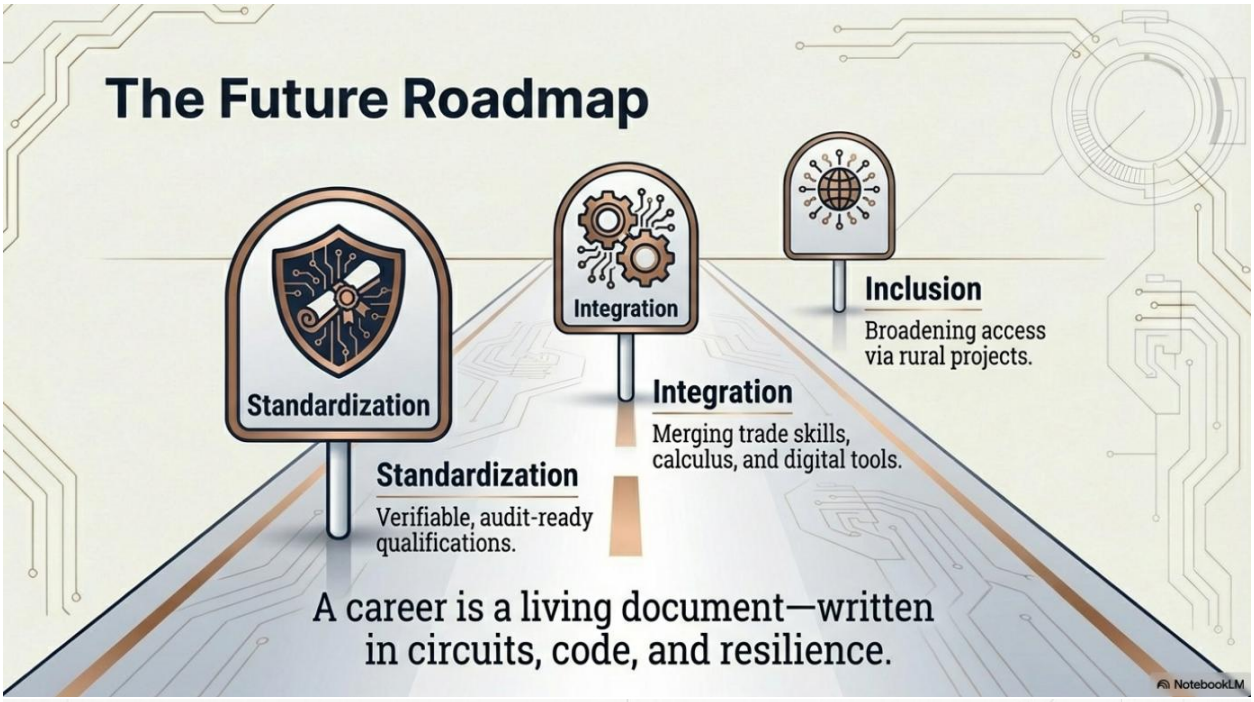
Virtual Work Experience

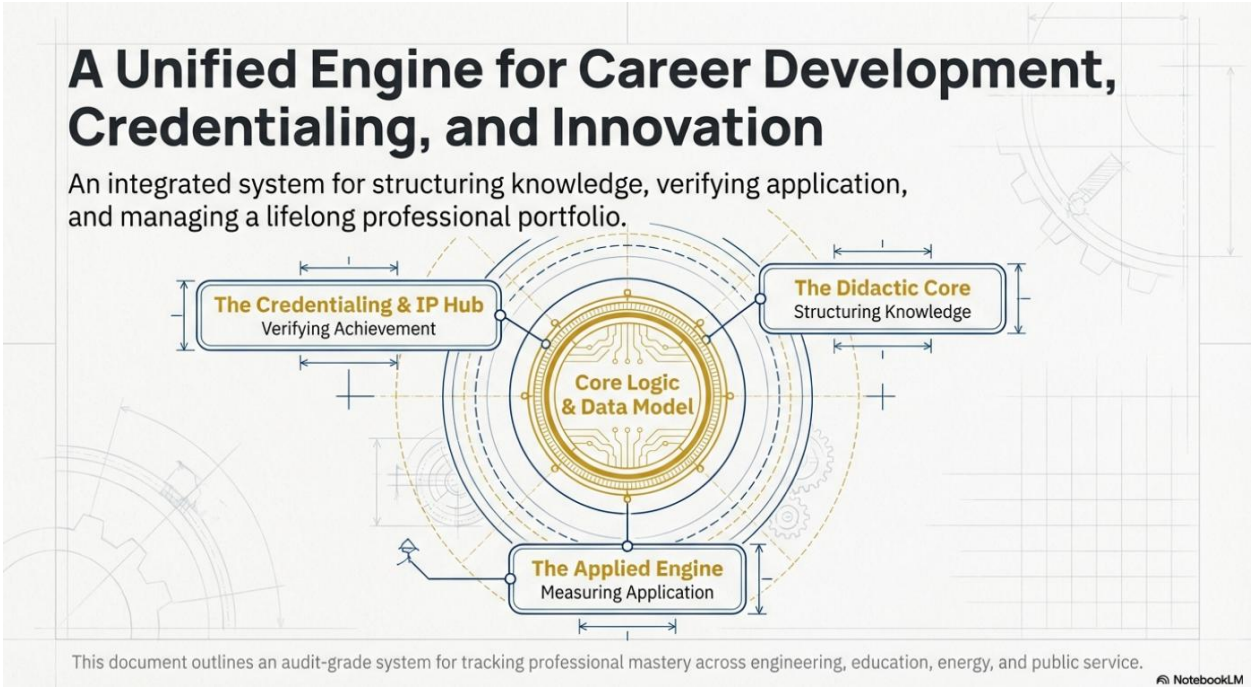
Webinar: Online Standards Development (OSD) – Latest Release (5.1)
21/07/2025
Designated Authority Submission Review

SCQF Level D

"Your diploma is just the tutorial level."

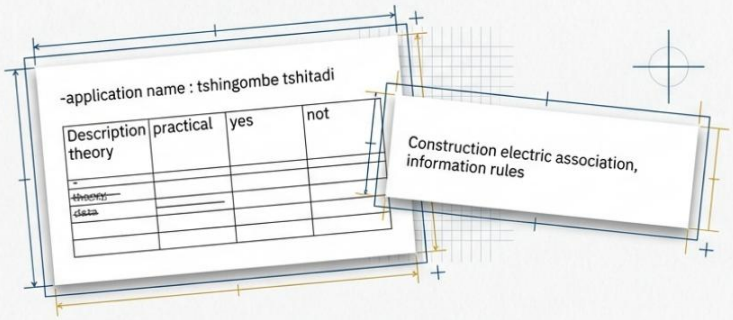
NotebookLM


The Future Roadmap
Standardization
Integration
Inclusion
Standardization
Verifiable, audit-ready qualifications.
Integration
Merging trade skills, calculus, and digital tools.
Inclusion
Broadening access via rural projects.
A career is a living document—written in circuits, code, and resilience.
NotebookLM


A Unified Engine for Career Development, Credentialing, and Innovation
An integrated system for structuring knowledge, verifying application, and managing a lifelong professional portfolio.
The Credentialing & IP Hub
Verifying Achievement
The Didactic Core
Structuring Knowledge
Core Logic & Data Model
The Applied Engine
Measuring Application
This document outlines an audit-grade system for tracking professional mastery across engineering, education, energy, and public service.
NotebookLM

The Challenge: A Fragmented Professional Record

Professional development is often scattered across disparate documents, informal training records, and unverified claims. This creates a challenge for individuals to prove their skills and for organizations to verify them. For example, the career data data of a professional like Tshingombe Tshitadi exists in fragmented, unstructured formats.



Raw, disconnected career data represents the typical starting point—a puzzle of unverified and unstructured information.

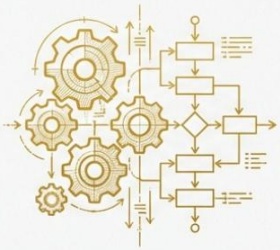
NotebookLM

An Architecture for Verifiable Human Potential

This system provides a modular, evidence-based foundation for professional development. It connects structured learning with practical application, culminating in verifiable credentials and traceable intellectual property. The platform is built on three interconnected pillars:

Pillar 1: The Didactic Core

How knowledge is structured and acquired through a library of modular, cross-disciplinary curricula.



Pillar 2: The Applied Engine

How knowledge is applied and measured through project-based work, simulations, and quantitative analysis.

Pillar 3: The Credentialing & IP Hub

How achievement is verified through national frameworks, blockchain certificates, and a structured patent lifecycle.

NotebookLM

Pillar 1: The Didactic Core, A Library of Structured Knowledge

The foundation of the system is a comprehensive library of didactic modules covering advanced technical and management fields. Each module is structured to map directly to qualifications and professional competencies.

MASTERS-LEVEL CURRICULUM

Renewable Energy

Wind Energy: Understanding the Technology and Integration
Solar Energy: Exploring Photovoltaic Systems

MASTERS-LEVEL CURRICULUM

Supply Chain Management

Masters in Supply Chain Management and Traceability
Focus on flow of goods, information, and finances from origin to consumer.

MASTERS-LEVEL CURRICULUM

Spatial Computing

Spatial Computing in Telecommunications
Utilizing GIS, LBS, and remote sensing for network optimization.

MASTERS-LEVEL CURRICULUM

Genetic Engineering

Biopharmaceutical Manufacturing
Focus on fermentation technology, scale-up, and quality control.

NotebookLM

Grounding Knowledge in Auditable Curricula

The system's flexibility allows it to structure knowledge from advanced degrees down to specific vocational trades. Every learning outcome is defined and mapped.

ELECTRICIAN 4TH SEMESTER SYLLABUS

NSQF (LEVEL - 5)

MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
GOVERNMENT OF INDIA

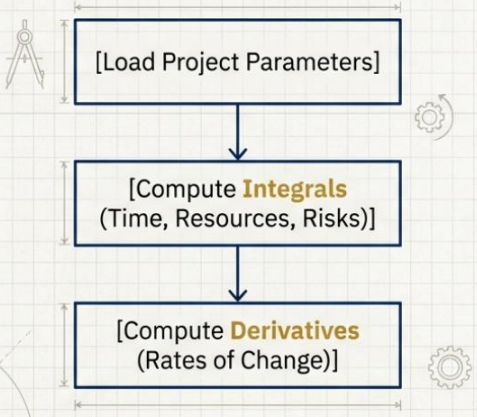
Module	Description	Time (Hrs)
Module 1	Electronic Practice (15 Exercises)	175
Module 2	Control Panel Wiring (5 Exercises)	100
Module 7	Circuit Breakers and Relays (5 Exercises)	25

Evidence: Structuring a national-level curriculum (NSQF Level 5 Electrician) into discrete, measurable modules.

NotebookLM

Pillar 2: The Applied Engine, From Theory to Measurable Application

The Applied Engine translates didactic learning into practical, measurable outcomes. It provides tools for project planning, resource management, and cost projection, ensuring every application of knowledge is tracked and quantified.



Project Planning

Total Time = $\int (t_i)di$

Resource Management

Total Consumption = $\int (r(t))dt$

Cost Projection

Total Cost = $\sum(M_{material} + H_{human} + S_{stationery} + B_{building})$

NotebookLM

Verifiable Logic and Hands-On Simulation

Renewable Energy & Smart Grid Functions

```
' Renewable Energy: Wind Harvest
Function WindEnergyHarvest(rho, A, v, eta, duration) As Double
  WindEnergyHarvest = 0.5 * rho * A * (v ^ 3) * eta * duration
End Function
```

UniTrainICredentialTracker Module

```
' UniTrainTrainee
Type UniTrainTrainee
    Name As String
    CourseCode As String
    ...
    FaultsResolved As Integer
    CertificationStatus As String
End Type
```

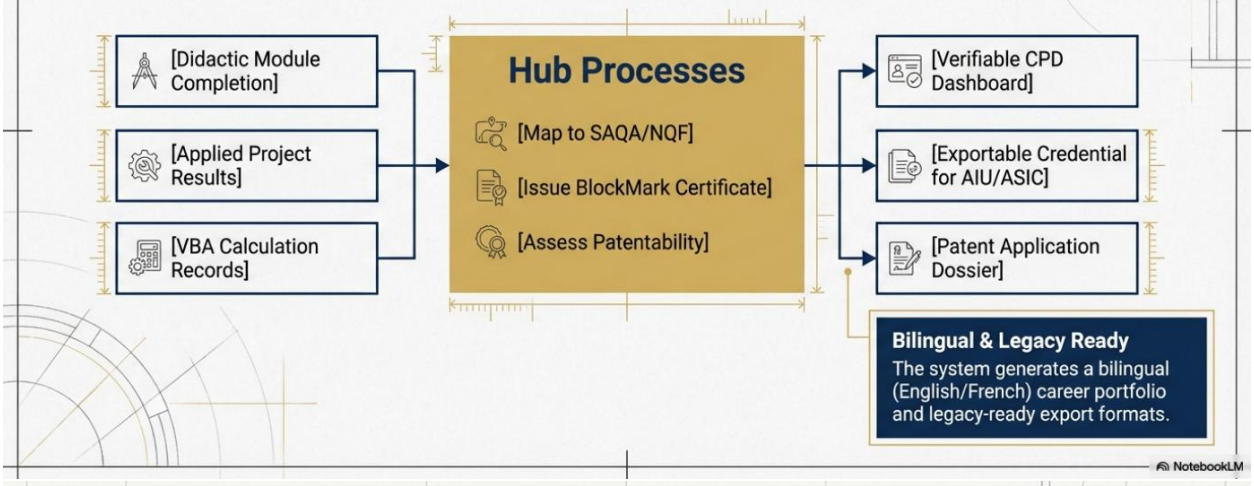
The system's backend is built on robust, auditable code. VBA modules automate complex calculations, creating a verifiable record. This logic is bridged to practical application through integration with hands-on training platforms like UniTrain and InsTrain.

DC Technology | AC Technology | Three-Phase Technology | KNX Building Automation

NotebookLM

Pillar 3: The Credentialing & IP Hub, Verifying Mastery and Ownership

All structured learning and applied work culminates in the **Credentialing & IP Hub**. This pillar formalizes achievement through **interoperable digital certificates**, maps competencies to **national qualification frameworks**, and provides a structured process for managing intellectual property.



Mapping Competencies to National and International Standards

The platform's data model is designed to align with rigorous qualification frameworks. It maps every learning activity to specific unit standards, ensuring full compliance and auditability.

Mapping to National Standards: The SAQA NQF Level 3 Electrical Engineering Certificate.

Component	Unit Standard ID	Title	Credits
Core	258963	Install, test and maintain electrical equipment in a hazardous location	10
Fundamental	119472	Accommodate audience and context needs in oral/signed	5

International Application: The French Brevet de Technicien Supérieur (BTS) in Electrotechnics.

Professional Activities

Conception - étude détaillée du projet
(Detailed project design)

Certified Competencies

Dimensionner les constituants
(Dimension components)

NotebookLM

The Mechanics of Verification: Blockchain-Ready Credentials

The system integrates with third-party services like BlockMark Technologies to issue secure, verifiable digital certificates. This process supports both expiring (e.g., annual CPD) and non-expiring credentials, with options for premium blockchain features.

BlockMark Certificate Issuance Price List (VAT Excl.)		
Item	**Price (credits)**	**Paid for by**
Issue a certificate with an expiry date	£1 (100) per year	Issuer
Issue a non-expiring certificate	£10 (1000)	Issuer
Stamp a hash of an issued certificate on blockchain	£1 (100)*	Issuer

**Coming soon (currently beta-testing with no charge)*

NotebookLM

From Research to Asset: A Structured Path to Patentability

Beyond credentials, the hub manages the lifecycle of intellectual property. It aligns with international patent standards, tracking research methodology and assessing inventions against key criteria to create an audit-ready trail for patent applications.

Patentability Criteria

Novelty: Not publicly disclosed before filing.

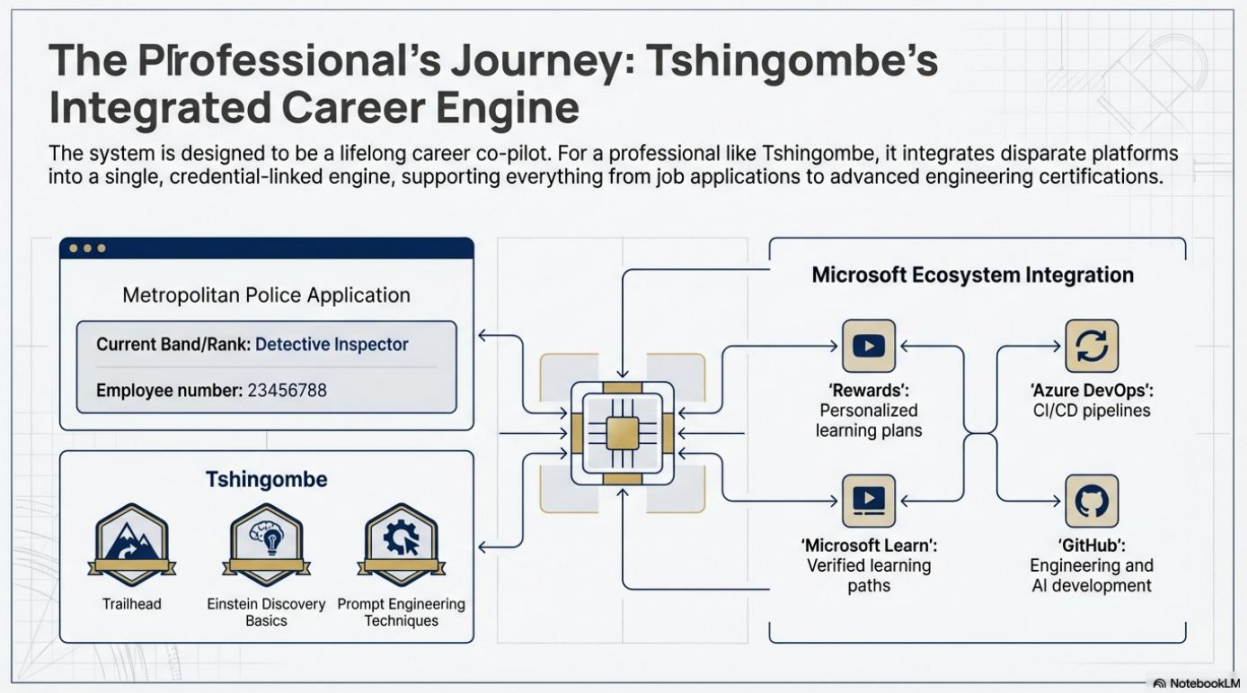
Utility: Must function and serve a useful purpose.

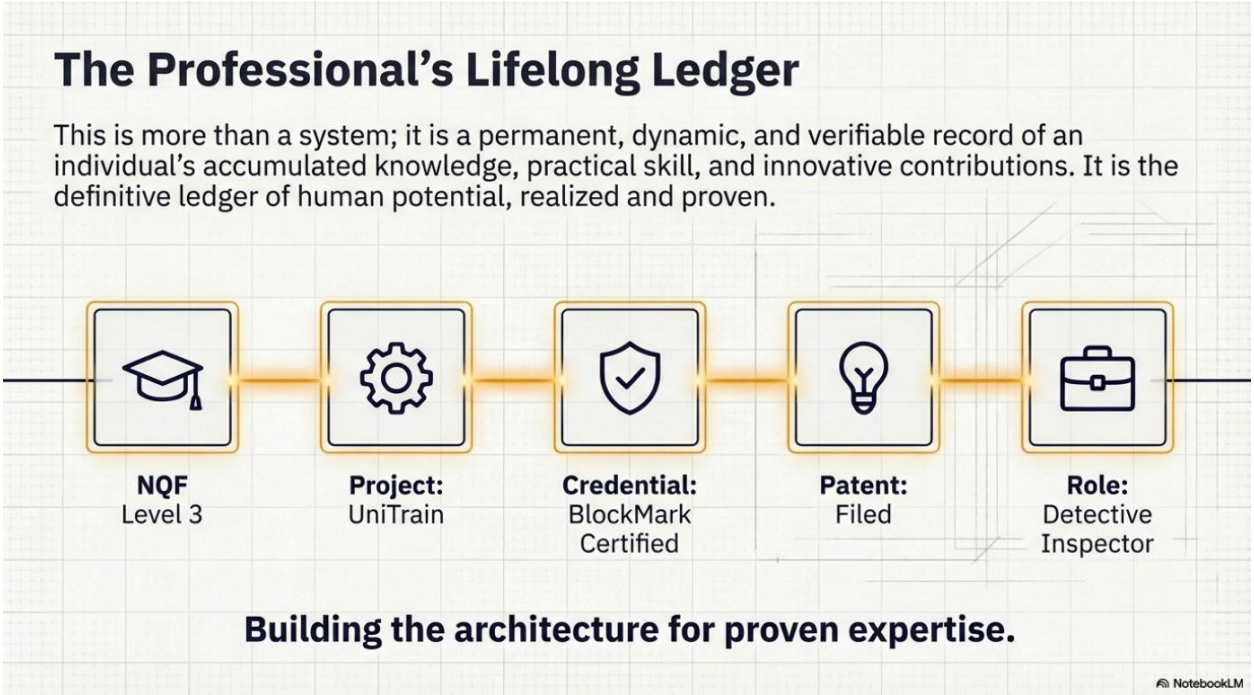
Inventive Step: Not obvious to a skilled professional in the field.

VBA Logic for Patent Tracking

```
' Module: Research and Patent Lifecycle Tracker
Type ResearchPatentProject
    ProjectID As String
    ...
    PatentNovelty As Boolean
    PatentUtility As Boolean
    PatentFiled As Boolean
End Type
```

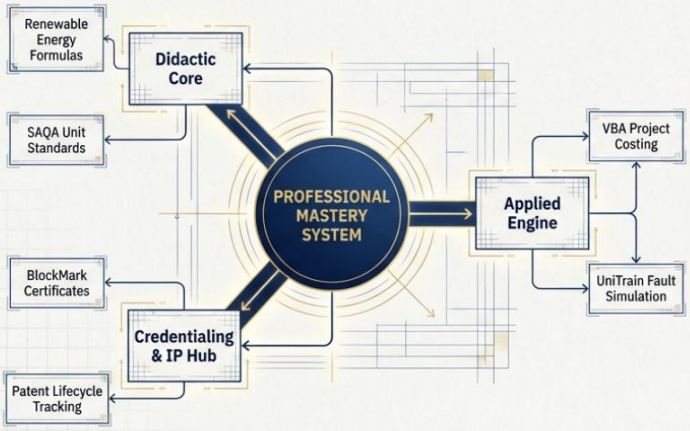
NotebookLM


The Professional's Journey: Tshingombe's Integrated Career Engine
The system is designed to be a lifelong career co-pilot. For a professional like Tshingombe, it integrates disparate platforms into a single, credential-linked engine, supporting everything from job applications to advanced engineering certifications.
Metropolitan Police Application
Current Band/Rank: Detective Inspector
Employee number: 23456788
Tshingombe
Trailhead
Einstein Discovery Basics
Prompt Engineering Techniques
Microsoft Ecosystem Integration
'Rewards': Personalized learning plans
'Azure DevOps': CI/CD pipelines
'Microsoft Learn': Verified learning paths
'GitHub': Engineering and AI development
NotebookLM


The Professional's Lifelong Ledger
This is more than a system; it is a permanent, dynamic, and verifiable record of an individual's accumulated knowledge, practical skill, and innovative contributions. It is the definitive ledger of human potential, realized and proven.
NQF Level 3
Project: UniTrain
Credential: BlockMark Certified
Patent: Filed
Role: Detective Inspector
Building the architecture for proven expertise.
NotebookLM

A Complete System of Systems for Professional Mastery

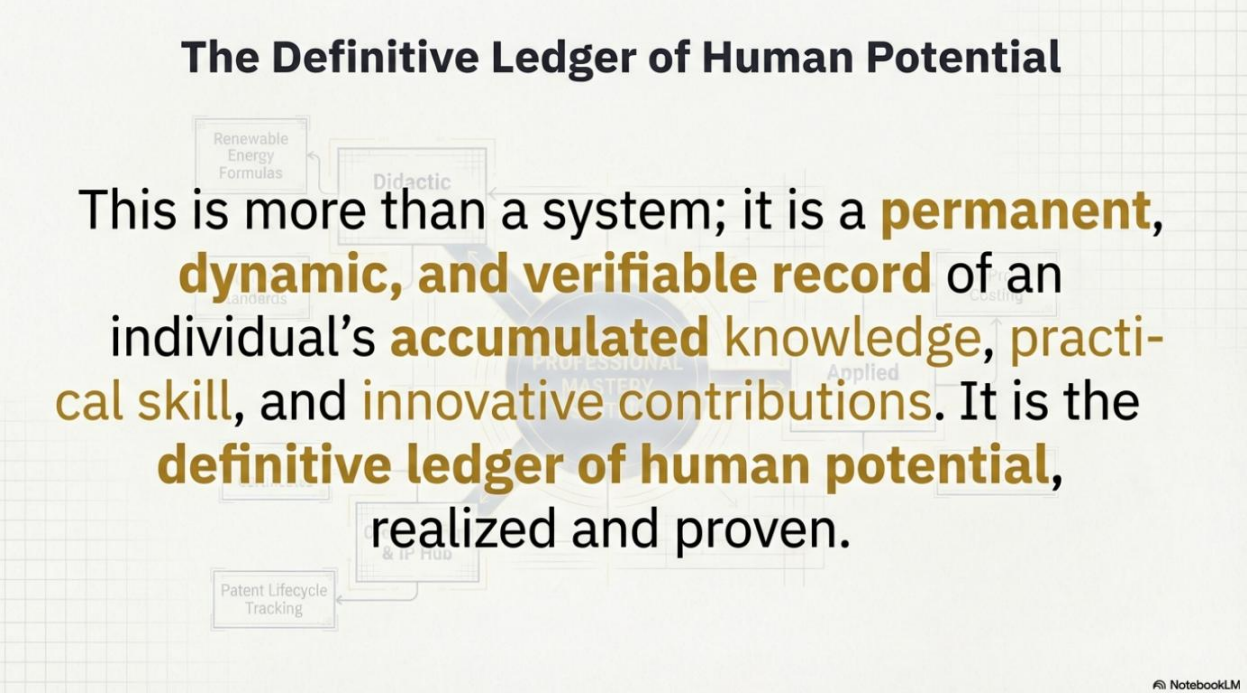
By integrating the Didactic Core, Applied Engine, and Credentialing Hub, the platform creates a closed-loop system for continuous development. Every skill learned is applied, every application is measured, and every achievement is verifiably certified.

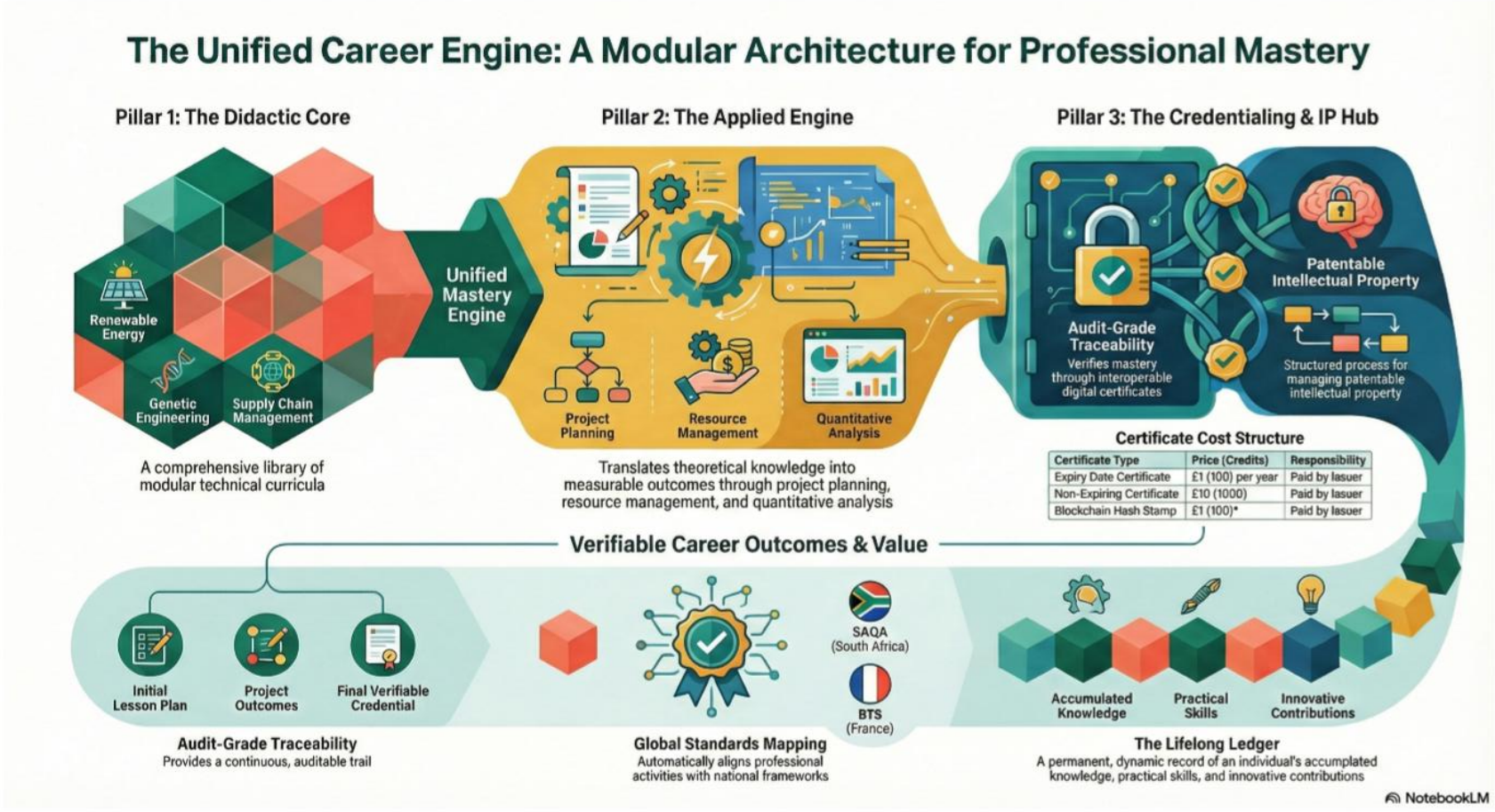


Key Value Propositions

- **Audit-Grade Traceability**: From lesson plan to final credential.
- **Integrated Learning**: Seamlessly connecting theory, simulation, and practice.
- **Verifiable Credentials**: Portable, secure, and mapped to global standards.
- **Lifelong Portfolio Management**: A dynamic record of career achievement and innovation.

NotebookLM


The Definitive Ledger of Human Potential
This is more than a system; it is a permanent, dynamic, and verifiable record of an individual's accumulated knowledge, practical skill, and innovative contributions. It is the definitive ledger of human potential, realized and proven.
Renewable Energy Formulas
Didactic
Applied
Patent Lifecycle Tracking
NotebookLM


The Unified Career Engine: A Modular Architecture for Professional Mastery
Pillar 1: The Didactic Core
Pillar 2: The Applied Engine
Pillar 3: The Credentialing & IP Hub
Renewable Energy
Genetic Engineering
Supply Chain Management
Unified Mastery Engine
Project Planning
Resource Management
Quantitative Analysis
Audit-Grade Traceability
Verifies mastery through interoperable digital certificates
Patentable Intellectual Property
Structured process for managing patentable intellectual property
A comprehensive library of modular technical curricula
Translates theoretical knowledge into measurable outcomes through project planning, resource management, and quantitative analysis
Certificate Cost Structure
Certificate Type | Price (Credits) | Responsibility
Expiry Date Certificate | £1 (100) per year | Paid by Issuer
Non-Expiring Certificate | £10 (1000) | Paid by Issuer
Blockchain Hash Stamp | £1 (100)* | Paid by Issuer
Verifiable Career Outcomes & Value
Initial Lesson Plan
Project Outcomes
Final Verifiable Credential
SAQA (South Africa)
BTS (France)
Accumulated Knowledge
Practical Skills
Innovative Contributions
Audit-Grade Traceability
Provides a continuous, auditable trail
Global Standards Mapping
Automatically aligns professional activities with national frameworks
The Lifelong Ledger
A permanent, dynamic record of an individual's accumulated knowledge, practical skills, and innovative contributions
NotebookLM

The Unified Career Engine: A Global Architecture for Professional Mastery

The Didactic Core: Structuring Knowledge

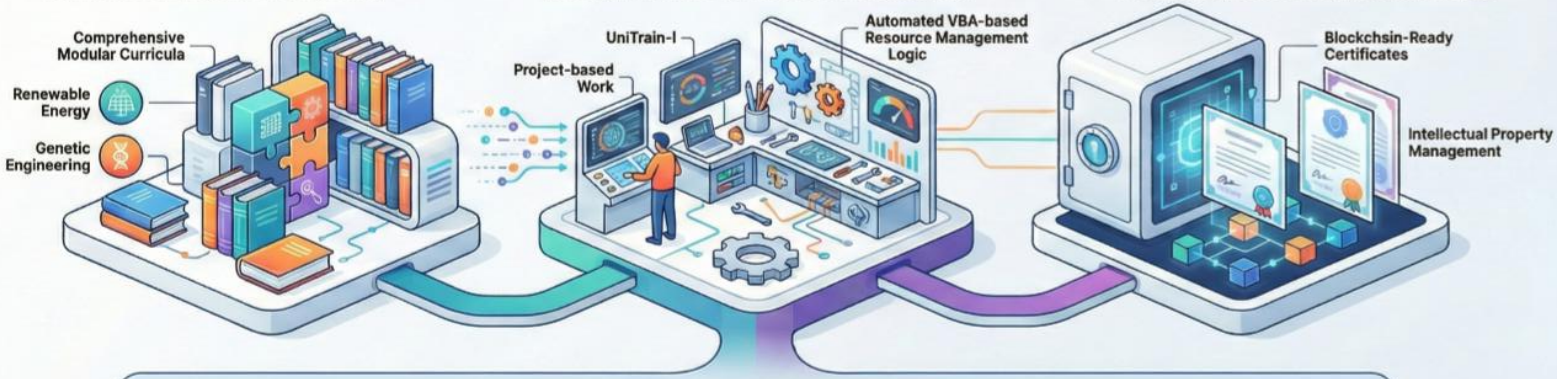
A comprehensive library of modular curricula covering technical fields like Renewable Energy and Genetic Engineering.

The Applied Engine: Measuring Application

Knowledge is quantified through project-based work, simulations (UniTrain-I), and automated VBA-based resource management logic.

The Credentialing & IP Hub: Verifying Achievement

Achievements are formalized via blockchain-ready certificates and a structured process for managing intellectual property.



Global Standards and Traceability

Audit-Grade Traceability

Every skill learned is measured and mapped directly to verifiable national and international qualifications.

100% Skill Mapping to National & International Qualifications

Competency Mapping to Credit Frameworks

Unit Standard ID	Title	Credits
258963	Install, test and maintain electrical equipment in hazardous locations	10
113934	Install and commission DC and AC machines and control gear	10
259097	Detailed inspection and repair defects on explosion prevention apparatus	6

Alignment Bridge

SAQA/NQF (South Africa) — BTS (France)

Multi-Framework Alignment

The system aligns with SAQA/NQF standards in South Africa and the French Brevet de Technicien Supérieur (BTS).

BlockMark Technologies

Secure, Expiring (CPD) or Non-Expiring Digital Certificates

Blockchain-Ready Verification

Integrated with BlockMark Technologies to issus secure, expiring (CPD) or non-expiring digital certificates.

NotebookLM

The Audit-Grade Career Engine

A Blueprint for Re-Engineering Vocational Competence & Verifiable Credentials.

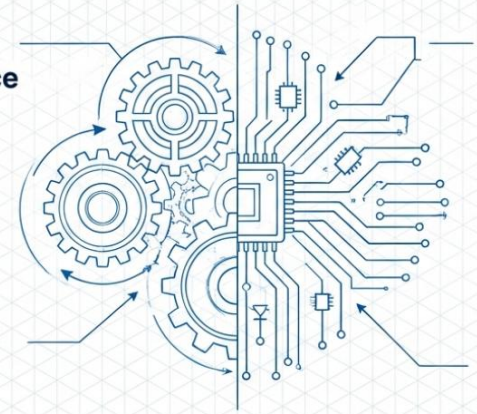
Specification Box
Framework: Modular / Auditable / Integrated
Author: Tshingombe Tshitadi Fiston
Status: Deployment Ready

NotebookLM

A New Paradigm for Professional Credentialing

The Challenge: Fragmented Competence

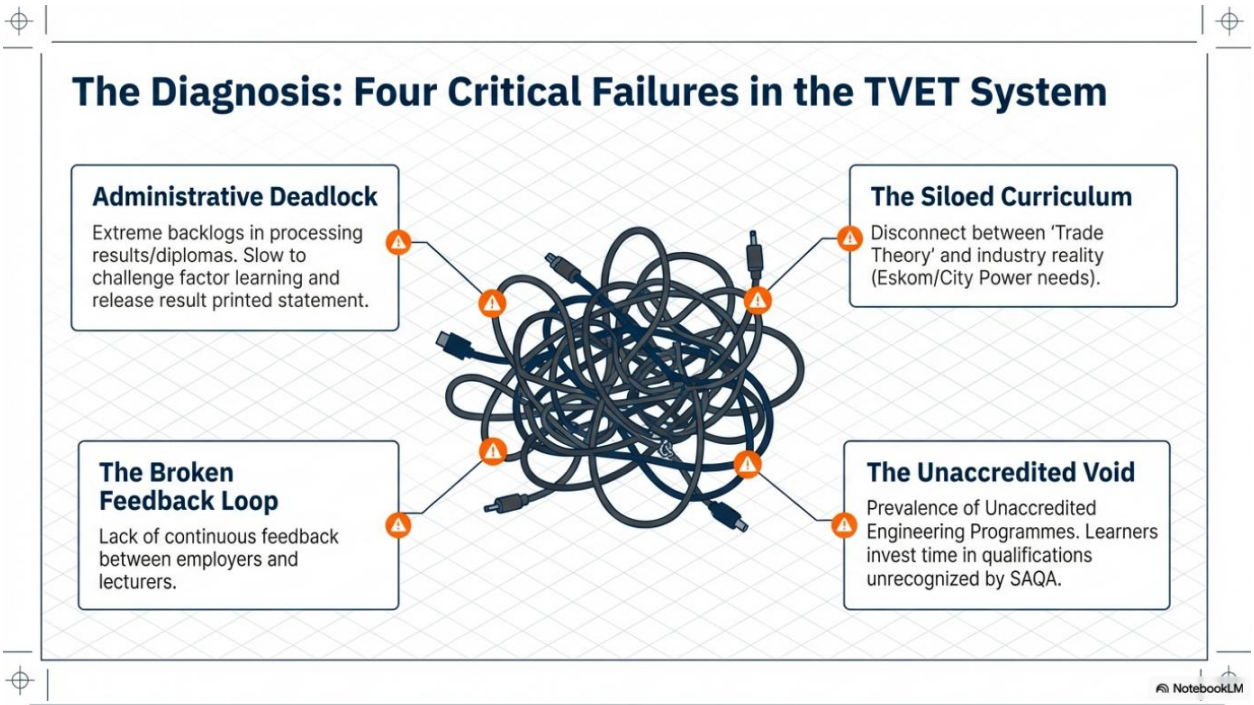
- Resumes are static, self-reported, and difficult to verify.
- Formal qualifications exist in siloed databases (DHET/SAQA backlogs).
- Practical skills are rarely quantified or linked to formal credentials.

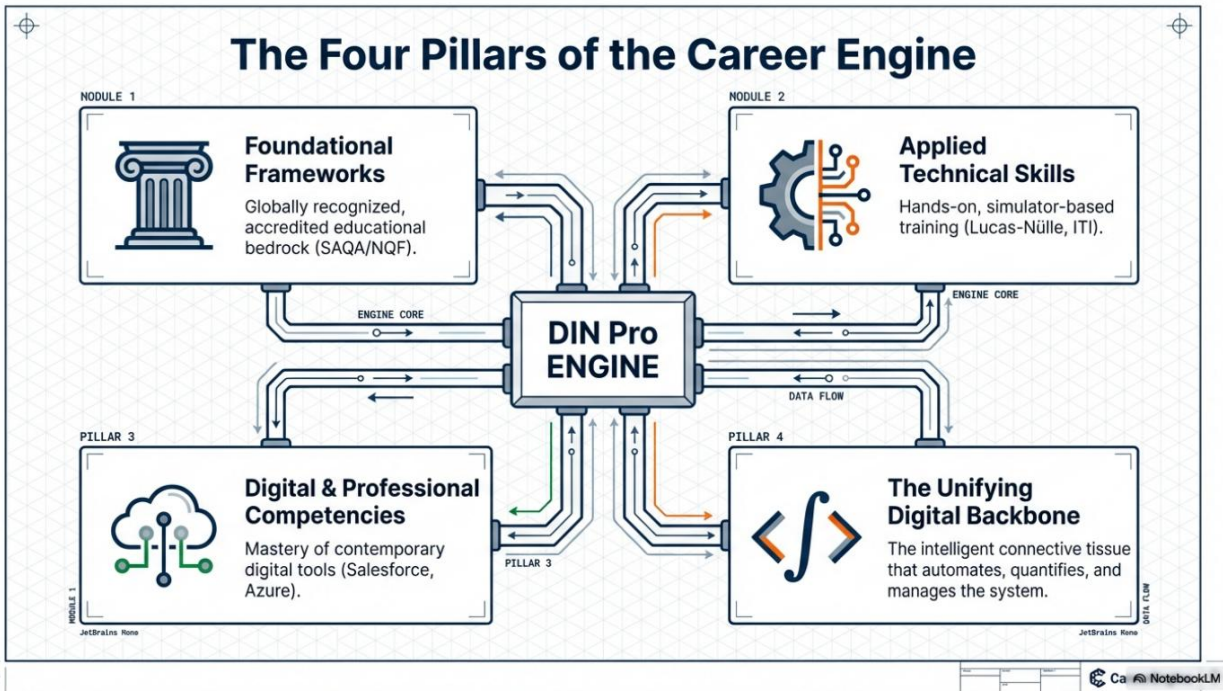


The Solution: Integrated System

- A modular system mapping every skill to a verifiable data point.
- Utilizes a quantitative backbone to measure outcomes (e.g., project costs, energy harvested).
- Generates audit-grade documentation for accreditation bodies like SAQA, AIU, and ASIC.

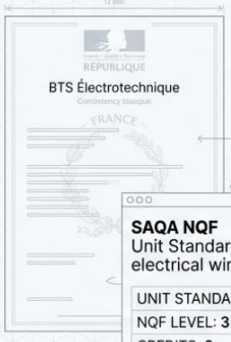
NotebookLM


The Diagnosis: Four Critical Failures in the TVET System
Administrative Deadlock
Extreme backlogs in processing results/diplomas. Slow to challenge factor learning and release result printed statement.
The Siloed Curriculum
Disconnect between 'Trade Theory' and industry reality (Eskom/City Power needs).
The Broken Feedback Loop
Lack of continuous feedback between employers and lecturers.
The Unaccredited Void
Prevalence of Unaccredited Engineering Programmes. Learners invest time in qualifications unrecognized by SAQA.
NotebookLM


The Four Pillars of the Career Engine
NODULE 1
Foundational Frameworks
Globally recognized, accredited educational bedrock (SAQA/NQF).
NODULE 2
Applied Technical Skills
Hands-on, simulator-based training (Lucas-Nülle, ITI).
ENGINE CORE
DIN Pro ENGINE
ENGINE CORE
DATA FLOW
PILLAR 3
Digital & Professional Competencies
Mastery of contemporary digital tools (Salesforce, Azure).
PILLAR 3
PILLAR 4
The Unifying Digital Backbone
The intelligent connective tissue that automates, quantifies, and manages the system.
JetBrains Mono
JetBrains Mono
NotebookLM

Bridging Global Standards with Real-World Diagnostics

Standards & Theory



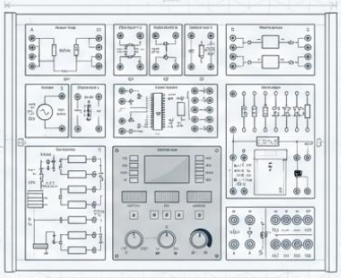
French BTS Électrotechnique: Competency blocks like "Étude et conception préliminaire".

SAQA NQF JetBrains Mono
Unit Standard 259037: Design and install electrical wire ways (NQF Level 3).

UNIT STANDARD ID: **259037**
NQF LEVEL: **3**
CREDITS: **8**

Application & Hardware

Lucas-Nülle Systems: UniTrain/InsTrain for fault simulation and real-time diagnostics.



JetBrains Mono

ITI Curriculum: NIMI standards (NSQF Level 5) focusing on soldering, wiring, and safety.

MODULE: **Wires, Joints - Soldering**
ALLOCATED TIME: **125 Hrs**
NSQF LEVEL: **5**

NotebookLM

Mastering the Tools of the Contemporary Digital Economy

Enterprise Cloud Platforms

Learning paths for **Technical Architects** covering **System Architecture, API Integration**, and **ETL.**

Advanced Computing Paradigms

Cloud Computing & Big Data (**Hadoop**, **Spark**).

Spatial Computing/GIS for telecommunications network optimization.

Digital Credentialing

Utilizing BlockMark Technologies for blockchain-stamped, verifiable certificates.

CareerEngine 03

NotebookLM

The Engine's Logic: Quantifying Performance with Code and Calculus

VBA Logic

```
Type CalculationRecord
    DateStamp As Date
    Topic As String "
    MethodUsed As String "
    SimulationTool As String "
    ResultSummary As String "
End Type
```

Calculus Metrics

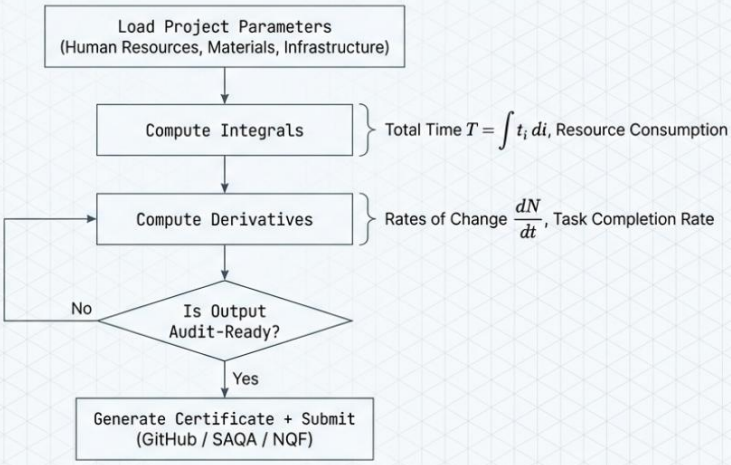
Total Engagement: $E_{\text{total}} = \int_0^T E(t)\,dt$

Total Energy Harvested: $E = \int_0^T \frac{1}{2}\rho A v^3 \eta dt$

Task Completion Rate: $\frac{dN}{dt}$ (Velocity of work)

NotebookLM

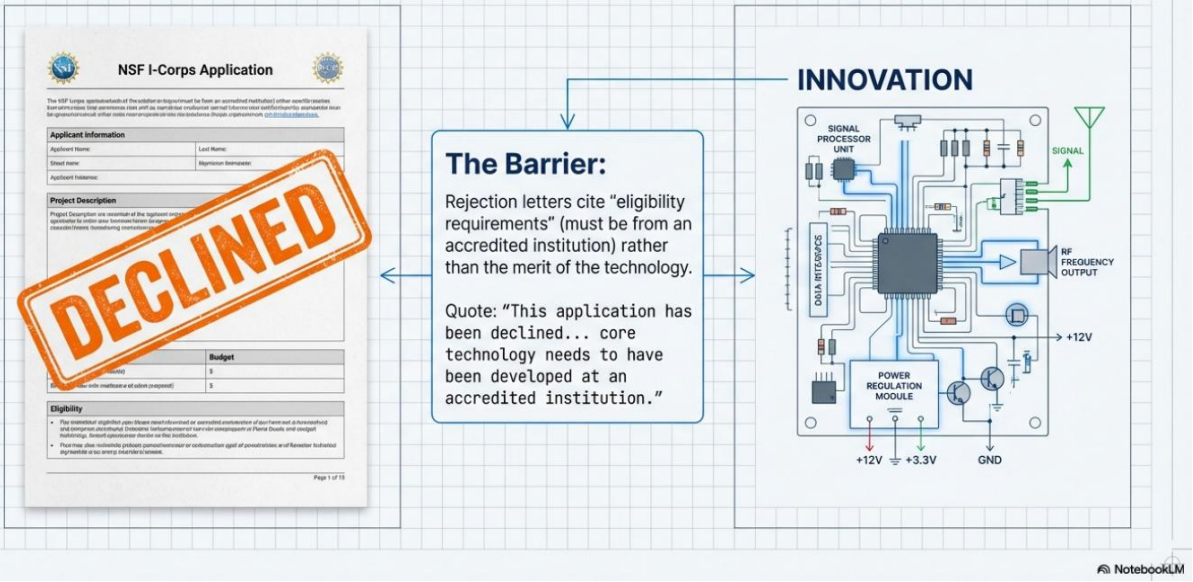
Visualizing the Workflow: An Automated, End-to-End Process



This automated workflow ensures every credential is the product of a traceable, data-driven, and verifiable process.

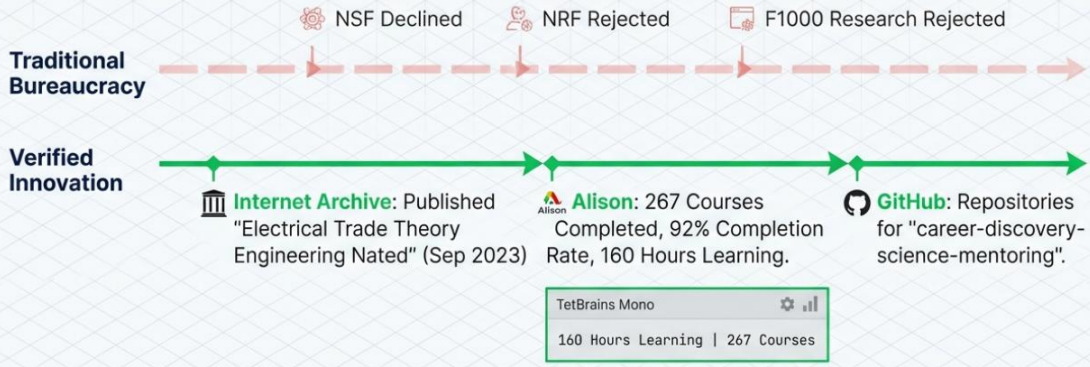
NotebookLM
NotebookLM

The Tshitadi Dossier: A Paradox of Prolific Work and Systemic Hurdles

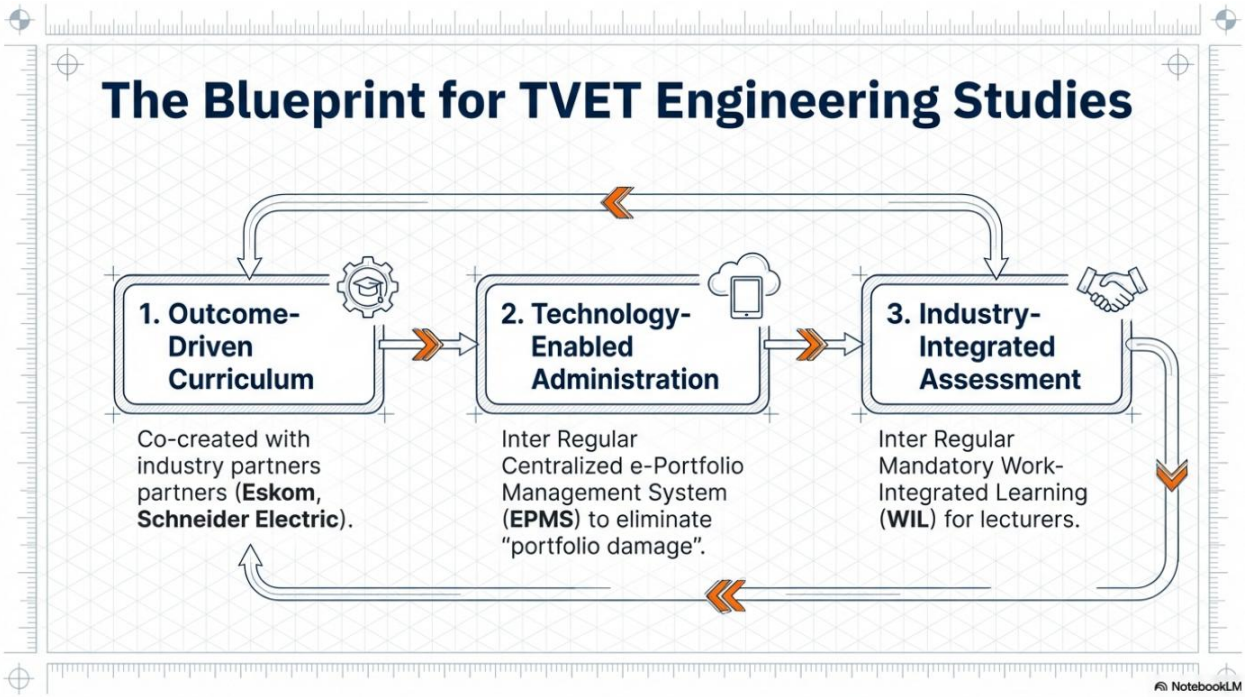

NSF I-Corps Application
DECLINED
The Barrier:
Rejection letters cite "eligibility requirements" (must be from an accredited institution) rather than the merit of the technology.
Quote: "This application has been declined... core technology needs to have been developed at an accredited institution."
INNOVATION
SIGNAL PROCESSOR UNIT
SIGNAL
RF FREQUENCY OUTPUT
+12V
POWER REGULATION MODULE
+12V
+3.3V
GND

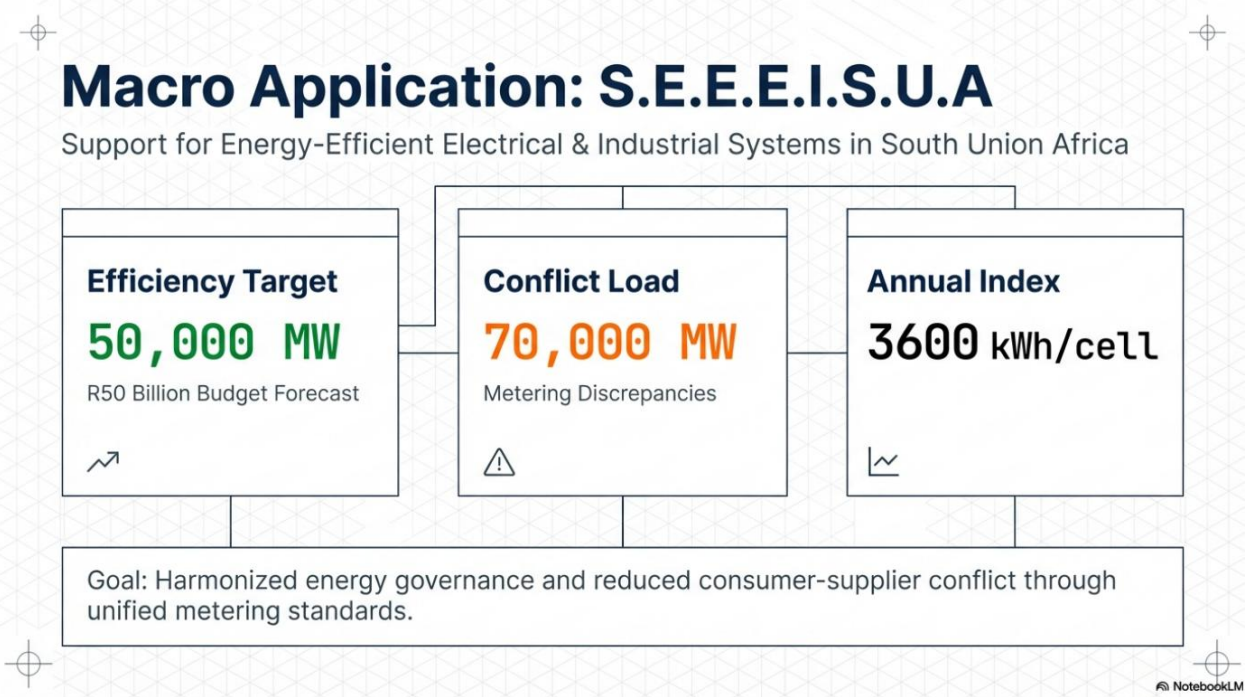
NotebookLM

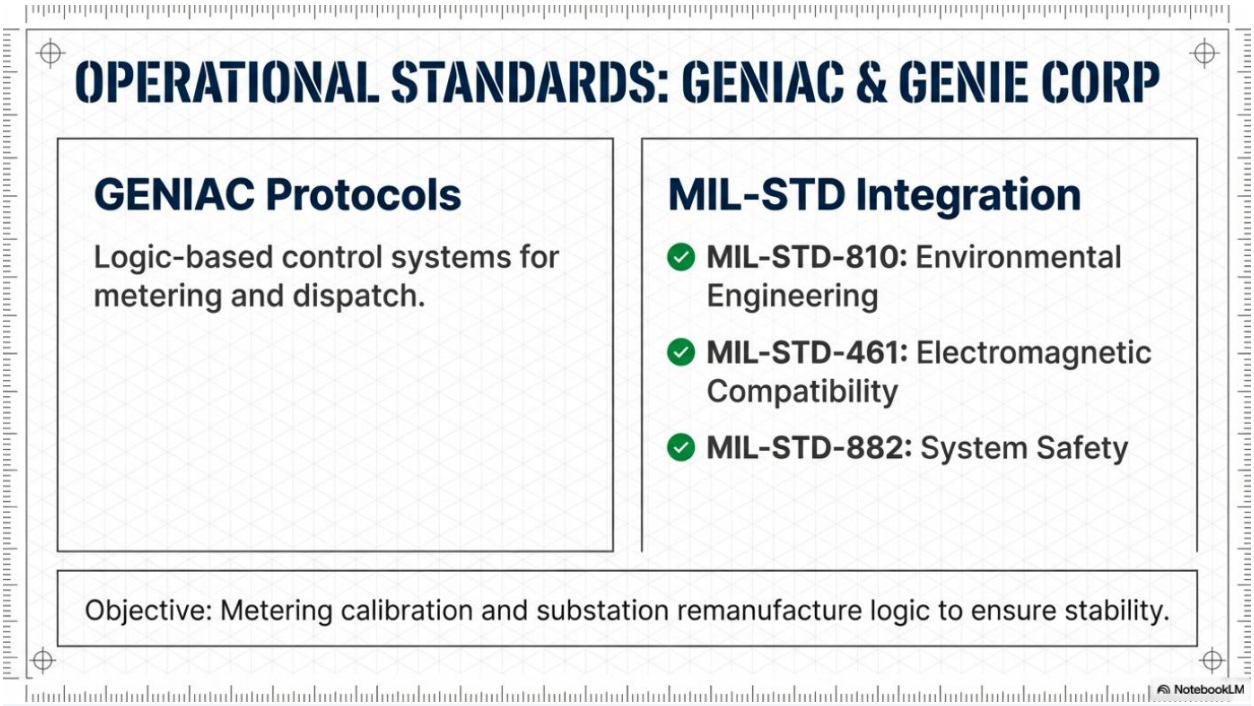
While Systems Declined, Innovation Accelerated

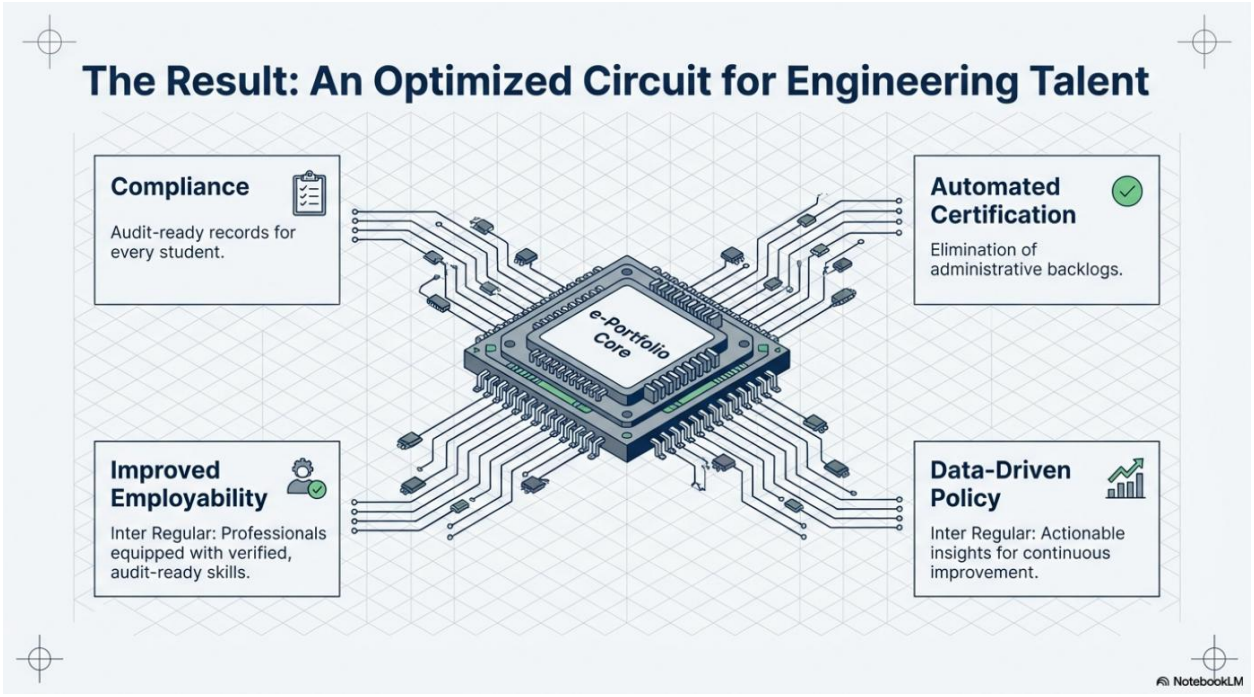

NSF Declined
NRF Rejected
F1000 Research Rejected
Traditional Bureaucracy
Verified Innovation
Internet Archive: Published "Electrical Trade Theory Engineering Nated" (Sep 2023)
Alison: 267 Courses Completed, 92% Completion Rate, 160 Hours Learning.
GitHub: Repositories for "career-discovery-science-mentoring".
TetBrains Mono
160 Hours Learning | 267 Courses

NotebookLM


The Blueprint for TVET Engineering Studies
1. Outcome-Driven Curriculum
Co-created with industry partners partners (Eskom, Schneider Electric).
2. Technology-Enabled Administration
Inter Regular Centralized e-Portfolio Management System (EPMS) to eliminate "portfolio damage".
3. Industry-Integrated Assessment
Inter Regular Mandatory Work-Integrated Learning (WIL) for lecturers.
NotebookLM


Macro Application: S.E.E.E.I.S.U.A
Support for Energy-Efficient Electrical & Industrial Systems in South Union Africa
Efficiency Target
50,000 MW
R50 Billion Budget Forecast
Conflict Load
70,000 MW
Metering Discrepancies
Annual Index
3600 kWh/cell
Goal: Harmonized energy governance and reduced consumer-supplier conflict through unified metering standards.
NotebookLM


OPERATIONAL STANDARDS: GENIAC & GENIE CORP
GENIAC Protocols
Logic-based control systems for metering and dispatch.
MIL-STD Integration
MIL-STD-810: Environmental Engineering
MIL-STD-461: Electromagnetic Compatibility
MIL-STD-882: System Safety
Objective: Metering calibration and substation remanufacture logic to ensure stability.
NotebookLM


The Result: An Optimized Circuit for Engineering Talent
Compliance
Audit-ready records for every student.
Automated Certification
Elimination of administrative backlogs.
e-Portfolio Core
Improved Employability
Inter Regular: Professionals equipped with verified, audit-ready skills.
Data-Driven Policy
Inter Regular: Actionable insights for continuous improvement.
NotebookLM

Engage the Expertise. Recognize the Innovation.

The challenge is no longer one of validation, but of engagement. The code is written. The frame- work is audit-ready. The work stands on its own merit.

Architect:	Tshingombe Tshitadi Fiston
Role:	National-grade curriculum architect, technical educator, and compliance strategist.
Architect:	Tshingombe Tshitadi Fiston National-grade curriculum architect, technical educator, and compliance strategist.
Reference Case:	The Tshiitadi Dossier
Status:	Available for System Deployment

NotebookLM

The Labyrinth: Navigating and Reforming South Africa's TVET Landscape

A Practitioner's Case for an Integrated Electrical Engineering Qualification Framework

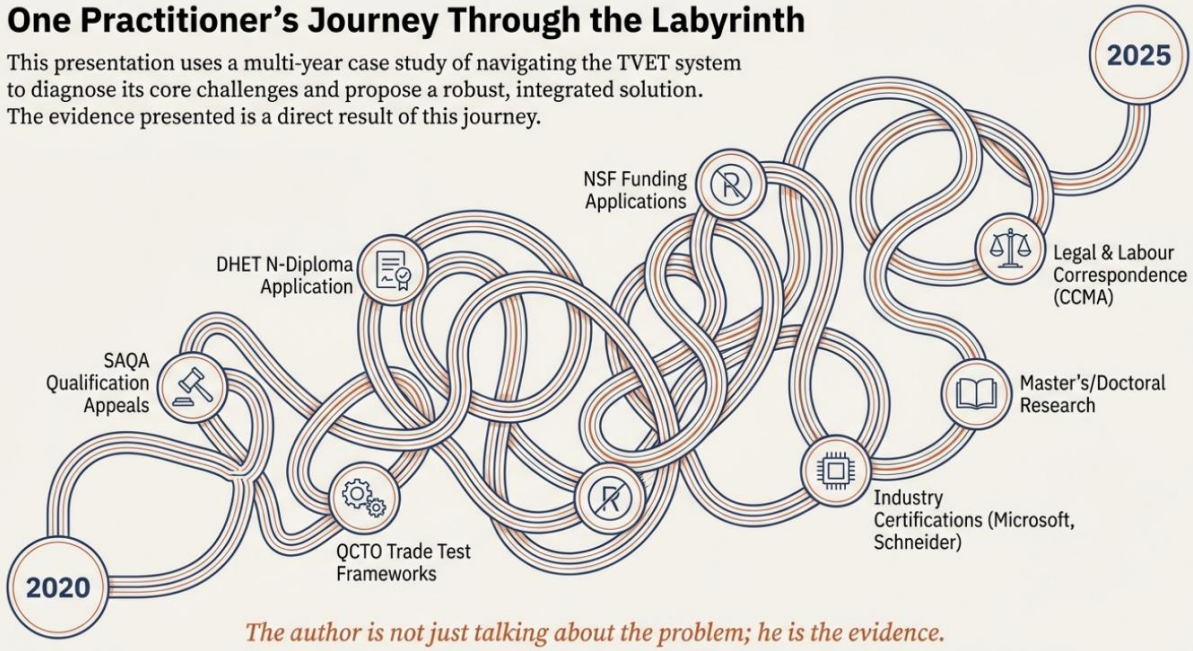
When the system is flawed, expertise is forged in navigating its complexities. This is the story of that navigation—and the blueprint for a better way forward.

When the system is flawed, expertise is forged in navigating its complexities. This is the story of that navigation—and the blueprint for a better way forward.

NotebookLM

One Practitioner's Journey Through the Labyrinth

This presentation uses a multi-year case study of navigating the TVET system to diagnose its core challenges and propose a robust, integrated solution. The evidence presented is a direct result of this journey.



The author is not just talking about the problem; he is the evidence.

NotebookLM

Evidence of Systemic Barriers

Exhibit A: The Battle for Qualification Recognition

Appeal to DHET

A formal appeal regarding the "release finalized n diplomat studies engineering electrical" due to "Irregularity observed."...that final result n4 and new re certificate body insurance investigation... was not in my application for diploma.

Engagement with SAQA

Correspondence with SAQA regarding the evaluation of a foreign qualification...marked by non-compliance issues...SAQA accept only schools leaving qualifications issued by the official examine certification body in the country of original...

Exhibit B: The Lockout from Systemic Innovation

From: Ruth Shuman, Program Director, National Science Foundation (NSF)
Subject: NSF I-Corps Program Application
Date: [Date]

DECLINED

Reason: This application has been declined. The applicant does not meet the eligibility requirements. To be eligible, the core technology needs to have been developed at an accredited institution of higher education. Companies are not eligible to apply. Furthermore, an application requires a minimum of three team members

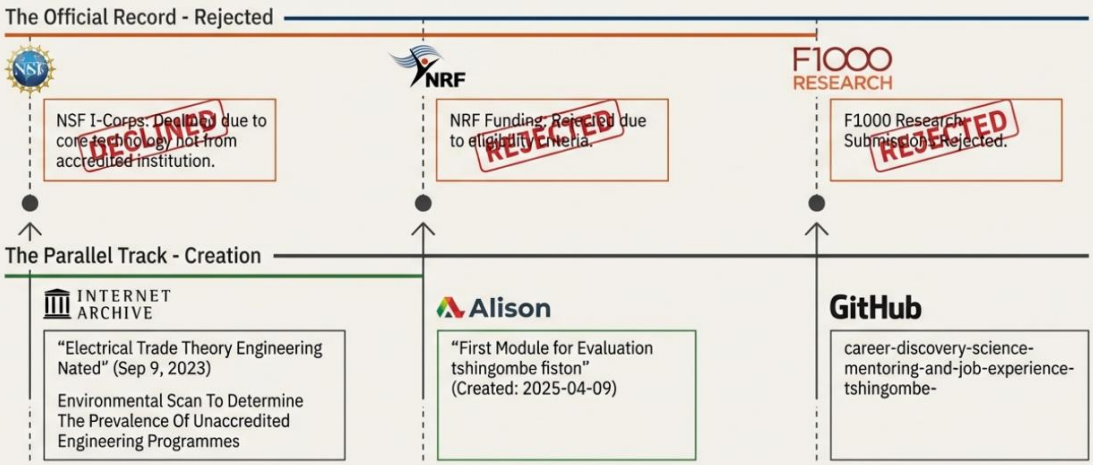
Implication

This highlights a critical challenge: practitioners with ground-level insights into systemic flaws are often locked out of the very funding channels designed to support educational and technological innovation.

NotebookLM

While Systems Declined, Innovation Accelerated

The official record of rejections tells only one side of the story. During the same period, a parallel track of creation, publication, and teaching was underway on global platforms, demonstrating persistent self-driven development and knowledge sharing.



NotebookLM

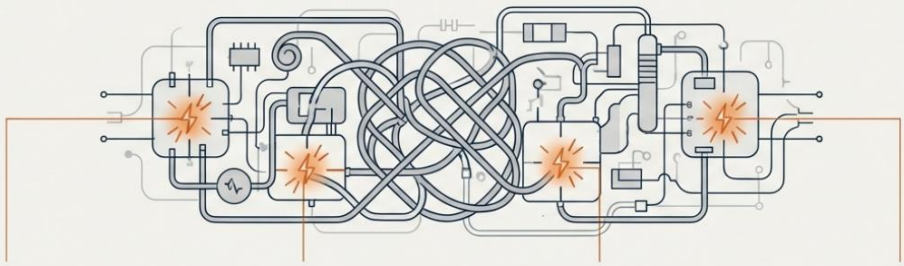
Forging Multidisciplinary Expertise Through Adversity

Navigating the labyrinth of qualifications, funding, and curriculum gaps required the development of a comprehensive skill set far beyond traditional engineering.

Advanced Engineering & Power Systems
Deepening the core technical domain, with a focus on rural energy, smart grids, and industrial automation.
Digital Systems & Educational Technology
Mastering the digital tools necessary to build modern learning solutions and streamline broken administrative processes.
Policy, Pedagogy & Framework Design
Undertaking formal research into the very systems of education, assessment, and qualification that created the initial obstacles.

NotebookLM

The Diagnosis: Four Critical Failures in the TVET System



Failure 1: The Administrative Deadlock

- **Problem:** Extreme backlogs in processing results, diplomas, and certifications by DHET and SAQA.
- **Impact:** Creates "over stay" students, prevents graduate employability, and damages institutional credibility.

Failure 2: The Siloed Curriculum

- **Problem:** A disconnect between theoretical "trade theory" taught in colleges and the practical, technology-driven needs of modern industry (e.g., City Power, Eskom).
- **Impact:** Graduates lack job-ready skills; lecturers lack current technical knowledge.

Failure 3: The Broken Feedback Loop

- **Problem:** Lack of a formal, continuous feedback mechanism between employers, lecturers, and curriculum developers.
- **Impact:** Qualifications and teaching methods become outdated and irrelevant.

Failure 4: The Unaccredited Void

- **Problem:** Inconsistent accreditation, verification, and recognition of both public and private institutional qualifications.
- **Impact:** Learners invest time and money into qualifications that are not recognized, leading to disputes and legal challenges.

NotebookLM

The Audit-Grade Career Engine

The Audit-Grade Career Engine

A Blueprint for Verifiable Competence

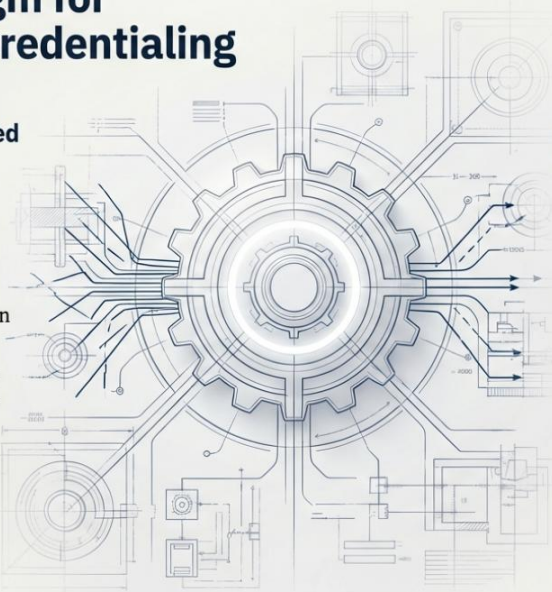
A modular framework that synthesizes formal education, vocational training, and workplace experience into a single, auditable system.

NotebookLM

A New Paradigm for Professional Credentialing

The Challenge: Fragmented Competence

- Resumes are static, self-reported, and difficult to verify.
- Formal qualifications (e.g., diplomas, certificates) exist in siloed databases.
- Practical, hands-on skills are rarely quantified or linked to formal credentials.

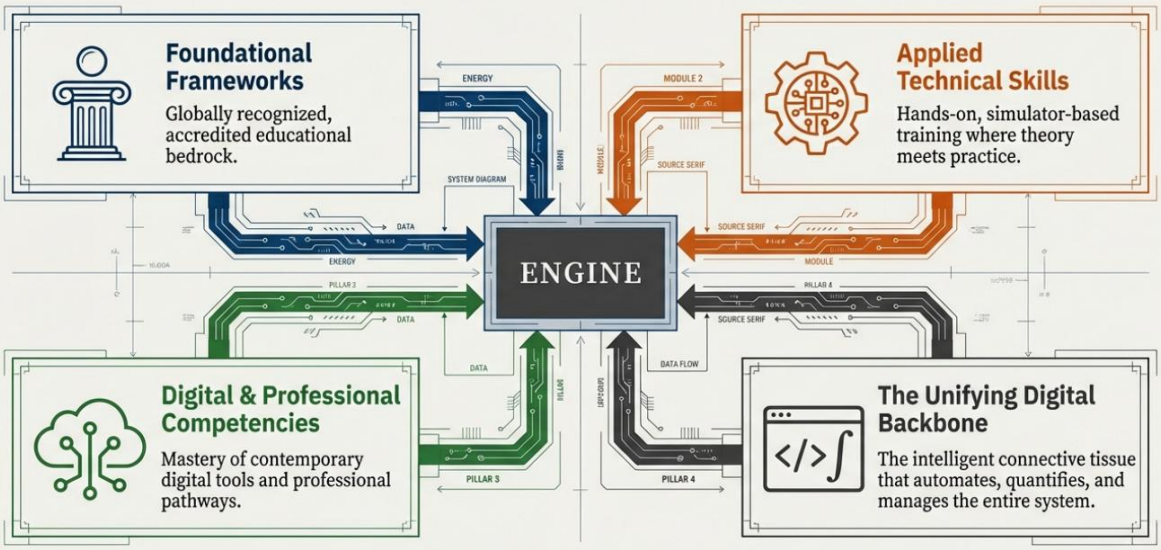


The Solution: An Integrated, Data-Driven System

- A modular system that maps every skill, qualification, and experience to a verifiable data point.
- Utilizes a quantitative backbone to measure outcomes, from project costs to energy harvested.
- Generates audit-grade documentation for accreditation bodies like SAQA, AIU, and ASIC.

NotebookLM

The Four Pillars of the Career Engine



NotebookLM

Built on a Bedrock of Global Standards & Applied Skills

French Higher Education

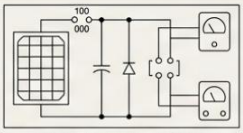
Brevet de Technicien Supérieur (BTS) - A Level 5 national diploma structured in "blocs de compétences" for modular validation.

BTS Électrotechnique - Compétence Block
RNCP41007BC01

Étude et conception préliminaire d'une installation
(Preliminary study and design of an installation)

German Didactic Systems (Lucas-Nülle)

Leveraging UniTrain and InsTrain modular systems for hands-on experimentation, fault simulation, and real-time diagnostics.



Lucas-Nülle Photovoltaics (EPH 9542)

South African Qualifications Authority (SAQA)

National Qualifications Framework (NQF) - Defines national standards and facilitates credit portability.

NQF Unit Standard Example	
Qualification:	National Certificate: Electrical Engineering (ID 72071)
Unit Standard ID:	259037
Title:	Design and install electrical wire ways
Level:	NQF Level 3
Credits:	8

Indian Vocational Training (ITI)

Incorporating the National Instructional Media Institute (NIMI) curriculum for structured practical exercises in wiring, soldering, and workshop safety.

NIMI Curriculum: Electrician (NSQF Level 5)	
Module No.:	3
Module Title:	Wires, Joints - Soldering - U.G. Cables
Allocated Time:	125 Hrs

NotebookLM

The Unifying Digital Backbone: Code, Calculus, and Logic

This is not just a collection of records; it is a fully integrated system managed by a custom-built digital engine. This backbone automates credential tracking, quantifies performance using advanced mathematics, and visualizes complex workflows.

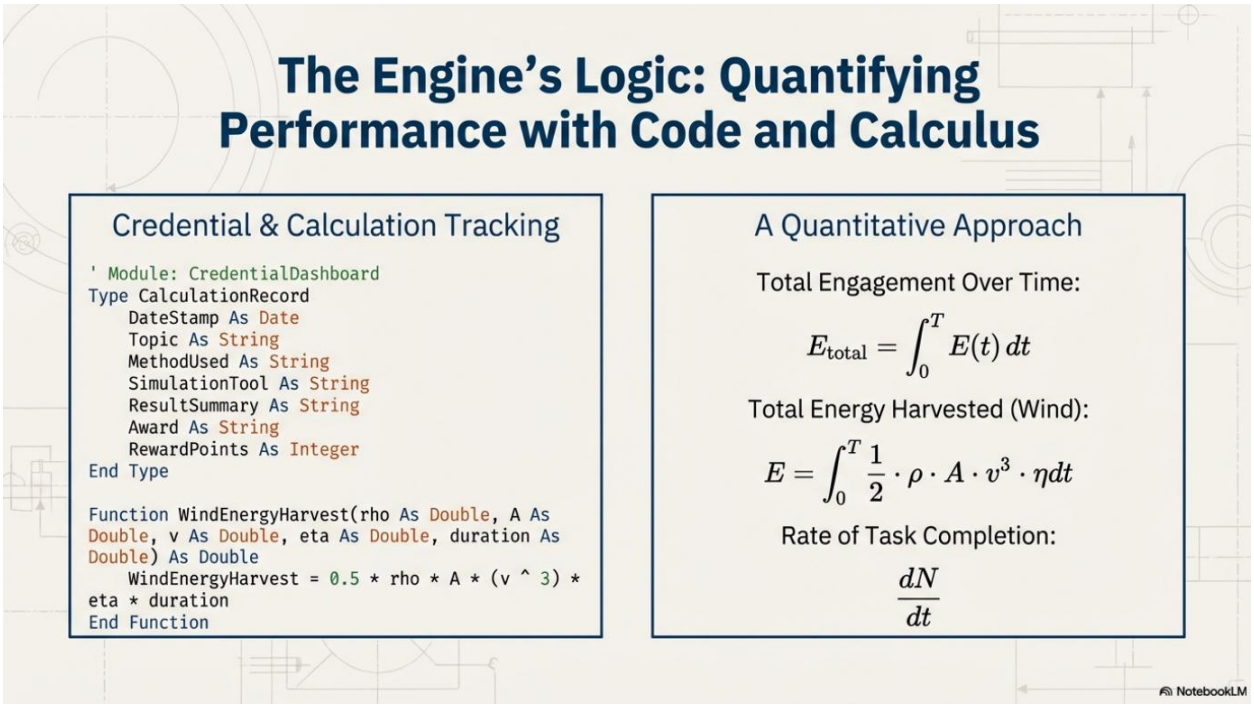
Quantitative Analysis
Using integral and derivative calculus to measure dynamic outputs like total project engagement, energy harvested, and rates of change.

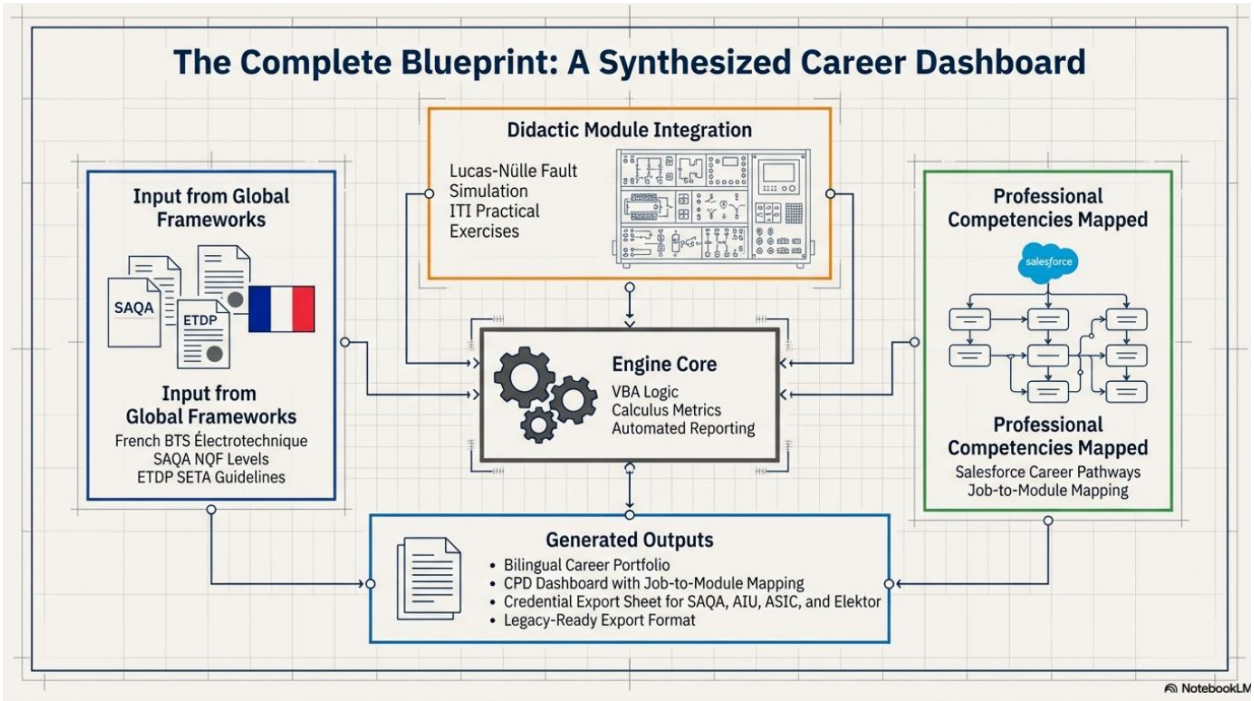
Process Visualization
Employing Logigrams and Algorigrams to map and automate complex processes, from technical calculations to credential submission.

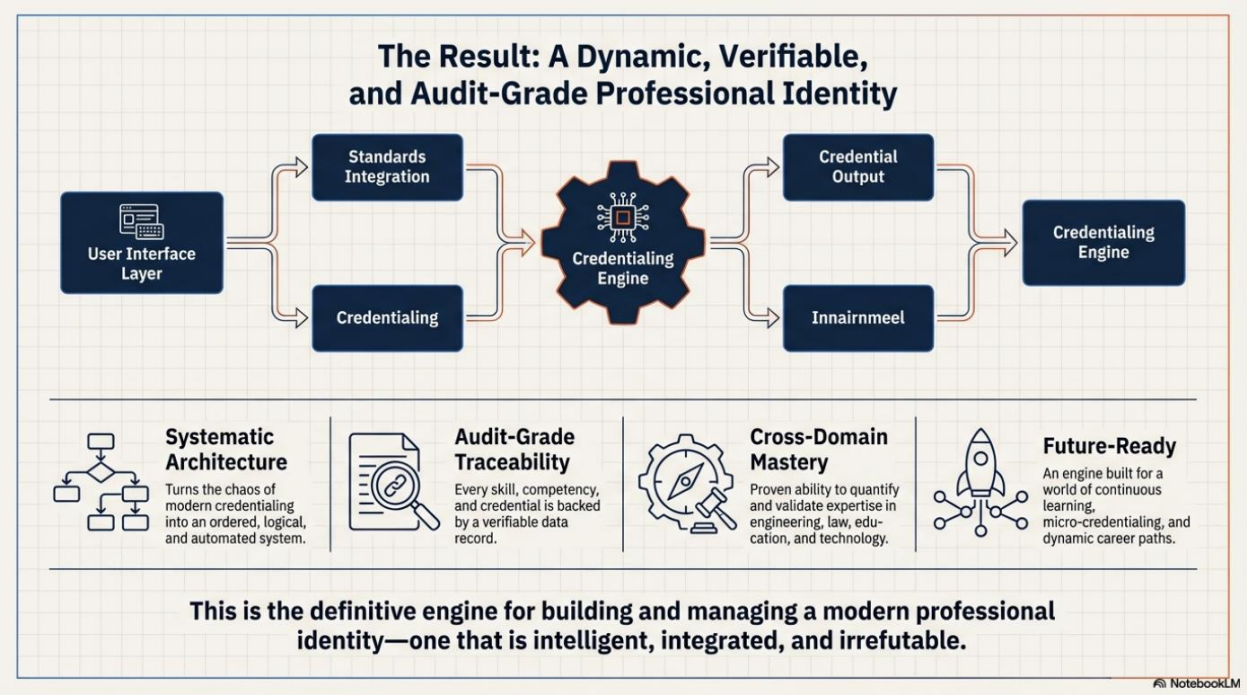
Automation & Management
Leveraging Visual Basic for Applications (VBA) to create custom data structures, functions, and audit reports for seamless management. (Code in Source Code Pro)

Digital Competencies & Credentialing
Integrates modern platforms like Salesforce for career pathways and BlockMark for blockchain-stamped certificates.

NotebookLM


The Engine's Logic: Quantifying Performance with Code and Calculus
Credential & Calculation Tracking
' Module: CredentialDashboard
Type CalculationRecord
DateStamp As Date
Topic As String
MethodUsed As String
SimulationTool As String
ResultSummary As String
Award As String
RewardPoints As Integer
End Type
Function WindEnergyHarvest(rho As Double, A As Double, v As Double, eta As Double, duration As Double) As Double
WindEnergyHarvest = 0.5 * rho * A * (v ^ 3) * eta * duration
End Function
A Quantitative Approach
Total Engagement Over Time:
$E_{\text{total}} = \int_0^T E(t)\,dt$
Total Energy Harvested (Wind):
$E = \int_0^T \frac{1}{2} \cdot \rho \cdot A \cdot v^3 \cdot \eta dt$
Rate of Task Completion:
$\frac{dN}{dt}$
NotebookLM


The Complete Blueprint: A Synthesized Career Dashboard
Didactic Module Integration
Lucas-Nülle Fault Simulation
ITI Practical Exercises
Input from Global Frameworks
SAQA
ETDP
Input from Global Frameworks
French BTS Électrotechnique
SAQA NQF Levels
ETDP SETA Guidelines
Engine Core
VBA Logic
Calculus Metrics
Automated Reporting
Professional Competencies Mapped
salesforce
Professional Competencies Mapped
Salesforce Career Pathways
Job-to-Module Mapping
Generated Outputs
• Bilingual Career Portfolio
• CPD Dashboard with Job-to-Module Mapping
• Credential Export Sheet for SAQA, AIU, ASIC, and Elektor
• Legacy-Ready Export Format
NotebookLM


The Result: A Dynamic, Verifiable, and Audit-Grade Professional Identity
User Interface Layer
Standards Integration
Credentialing
Credentialing Engine
Credential Output
Innairnmeel
Credentialing Engine
Systematic Architecture
Turns the chaos of modern credentialing into an ordered, logical, and automated system.
Audit-Grade Traceability
Every skill, competency, and credential is backed by a verifiable data record.
Cross-Domain Mastery
Proven ability to quantify and validate expertise in engineering, law, education, and technology.
Future-Ready
An engine built for a world of continuous learning, micro-credentialing, and dynamic career paths.
This is the definitive engine for building and managing a modern professional identity—one that is intelligent, integrated, and irrefutable.
NotebookLM

The Case for a New Model of Expertise

- The evidence demonstrates a sustained, high-level output of technical and pedagogical work against significant systemic friction.
- This journey has forged a unique, multi-disciplinary expertise that integrates core engineering, curriculum design, and a deep understanding of global qualification systems.
- The challenge is no longer one of validation, but of recognition and engagement. The work stands on its own merit.

Engage the expertise. Recognize the innovation.

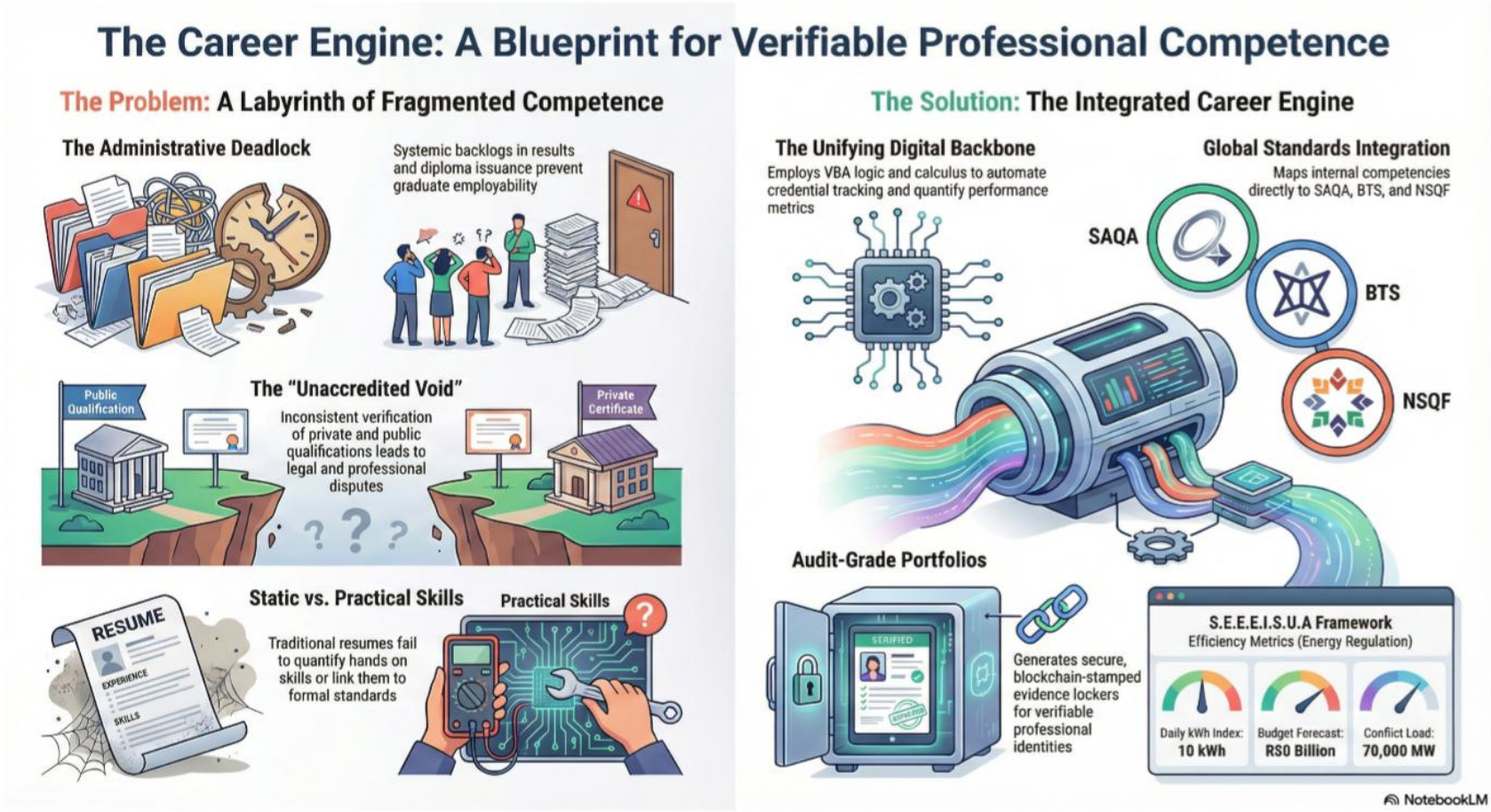
Name:
Tshingombe Tshitadi Fiston

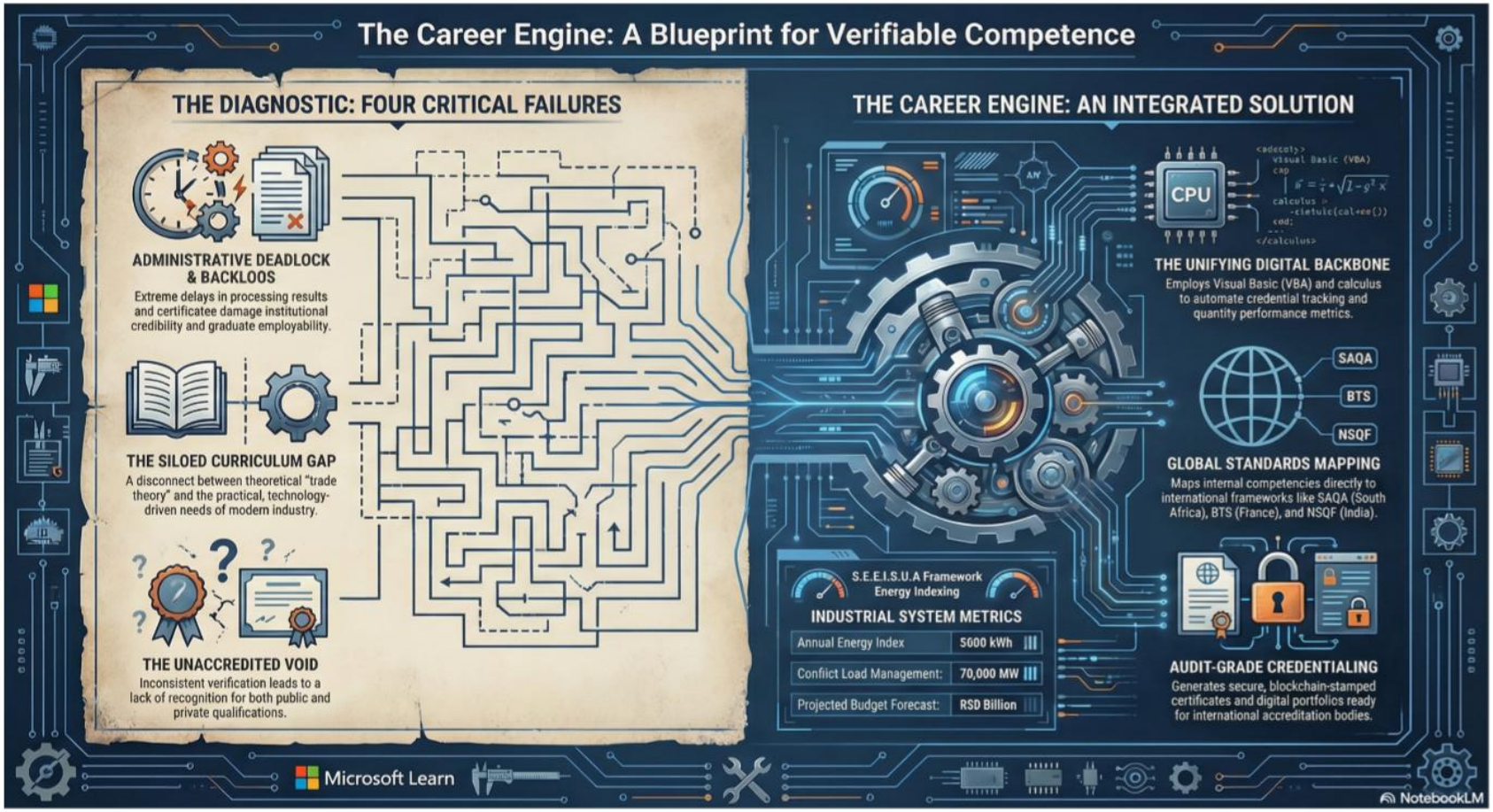
Email:
tshingombefiston@gmail.com

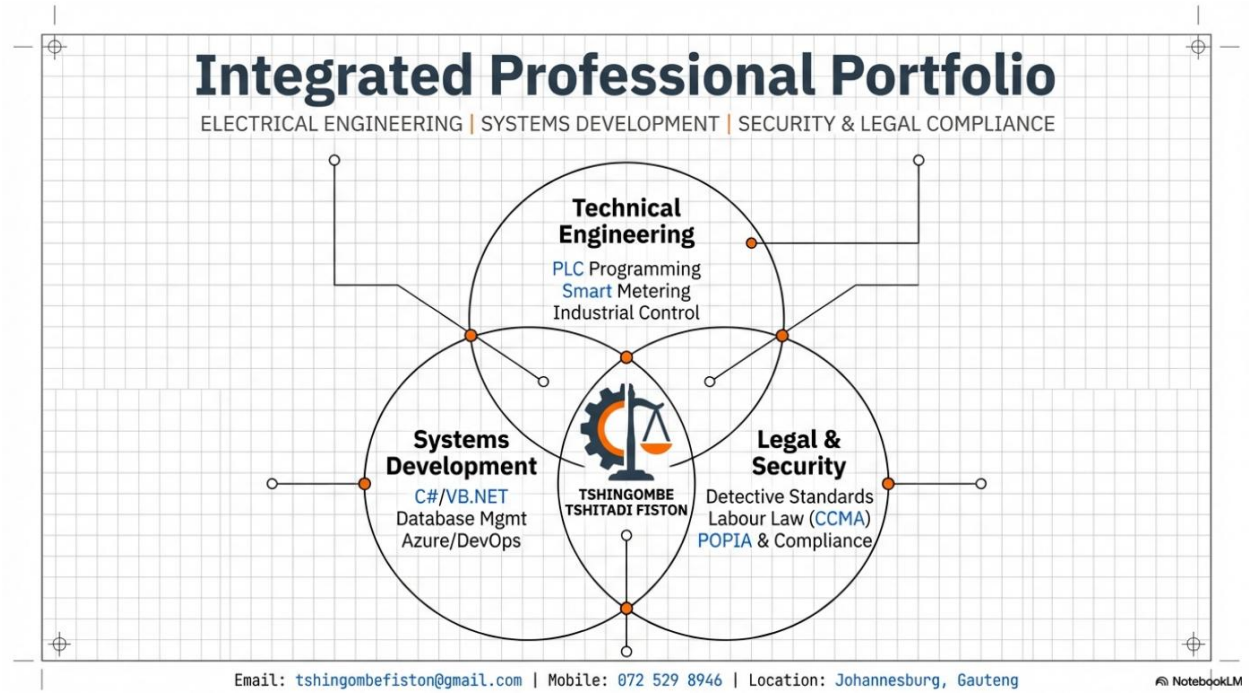
Website:
cohtww.tshingimbefiston.com

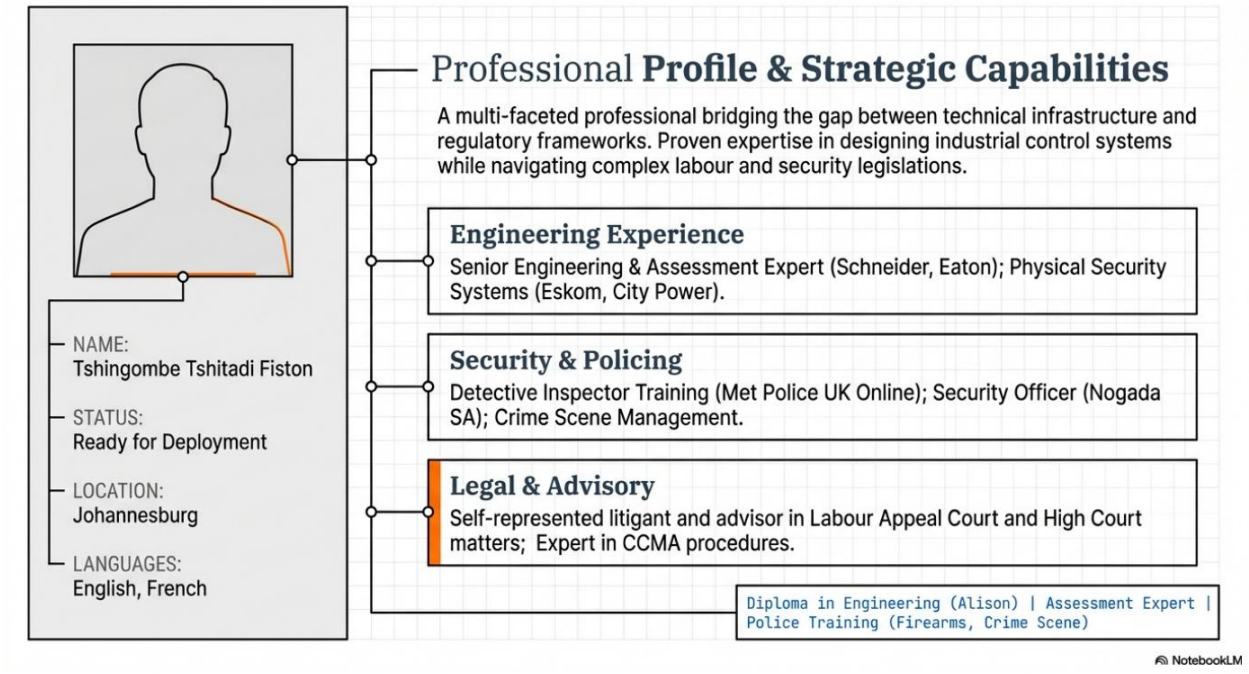
Profile:
archive.org/details/@rdferz

NotebookLM


The Career Engine: A Blueprint for Verifiable Professional Competence
The Problem: A Labyrinth of Fragmented Competence
The Administrative Deadlock
Systemic backlogs in results and diploma issuance prevent graduate employability
The "Unaccredited Void"
Public Qualification
Private Certificate
Inconsistent verification of private and public qualifications leads to legal and professional disputes
Static vs. Practical Skills
RESUME
EXPERIENCE
SKILLS
Practical Skills
Traditional resumes fail to quantify hands on skills or link them to formal standards
The Solution: The Integrated Career Engine
The Unifying Digital Backbone
Employs VBA logic and calculus to automate credential tracking and quantify performance metrics
Global Standards Integration
Maps internal competencies directly to SAQA, BTS, and NSQF
SAQA
BTS
NSQF
Audit-Grade Portfolios
Generates secure, blockchain-stamped evidence lockers for verifiable professional identities
S.E.E.E.I.S.U.A Framework
Efficiency Metrics (Energy Regulation)
Daily kWh Index: 10 kWh
Budget Forecast: R80 Billion
Conflict Load: 70,000 MW
NotebookLM


The Career Engine: A Blueprint for Verifiable Competence
THE DIAGNOSTIC: FOUR CRITICAL FAILURES
ADMINISTRATIVE DEADLOCK & BACKLOOS
Extreme delays in processing results and certificatee damage institutional credibility and graduate employability.
THE SILOED CURRICULUM GAP
A disconnect between theoretical "trade theory" and the practical, technology-driven needs of modern industry.
THE UNACCREDITED VOID
Inconsistent verification leads to a lack of recognition for both public and private qualifications.
THE CAREER ENGINE: AN INTEGRATED SOLUTION
CPU
THE UNIFYING DIGITAL BACKBONE
Employs Visual Basic (VBA) and calculus to automate credential tracking and quantity performance metrics.
SAQA
BTS
NSQF
GLOBAL STANDARDS MAPPING
Maps internal competencies directly to international frameworks like SAQA (South Africa), BTS (France), and NSQF (India).
S.E.E.I.S.U.A Framework
Energy Indexing
INDUSTRIAL SYSTEM METRICS
Annual Energy Index 5000 kWh
Conflict Load Management: 70,000 MW
Projected Budget Forecast: RSD Billion
AUDIT-GRADE CREDENTIALING
Generates secure, blockchain-stamped certificates and digital portfolios ready for international accreditation bodies.
Microsoft Learn
NotebookLM

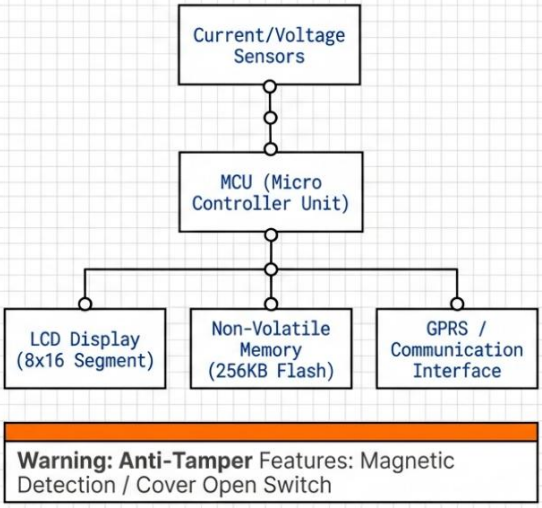

Integrated Professional Portfolio
ELECTRICAL ENGINEERING | SYSTEMS DEVELOPMENT | SECURITY & LEGAL COMPLIANCE
Technical Engineering
PLC Programming
Smart Metering
Industrial Control
Systems Development
C#/VB.NET
Database Mgmt
Azure/DevOps
TSHINGOMBE TSHITADI FISTON
Legal & Security
Detective Standards
Labour Law (CCMA)
POPIA & Compliance
Email: tshingombefiston@gmail.com | Mobile: 072 529 8946 | Location: Johannesburg, Gauteng
NotebookLM


NAME:
Tshingombe Tshitadi Fiston
STATUS:
Ready for Deployment
LOCATION:
Johannesburg
LANGUAGES:
English, French
Professional Profile & Strategic Capabilities
A multi-faceted professional bridging the gap between technical infrastructure and regulatory frameworks. Proven expertise in designing industrial control systems while navigating complex labour and security legislations.
Engineering Experience
Senior Engineering & Assessment Expert (Schneider, Eaton); Physical Security Systems (Eskom, City Power).
Security & Policing
Detective Inspector Training (Met Police UK Online); Security Officer (Nogada SA); Crime Scene Management.
Legal & Advisory
Self-represented litigant and advisor in Labour Appeal Court and High Court matters; Expert in CCMA procedures.
Diploma in Engineering (Alison) | Assessment Expert | Police Training (Firearms, Crime Scene)
NotebookLM

Technical Showcase: Smart Metering Technologies

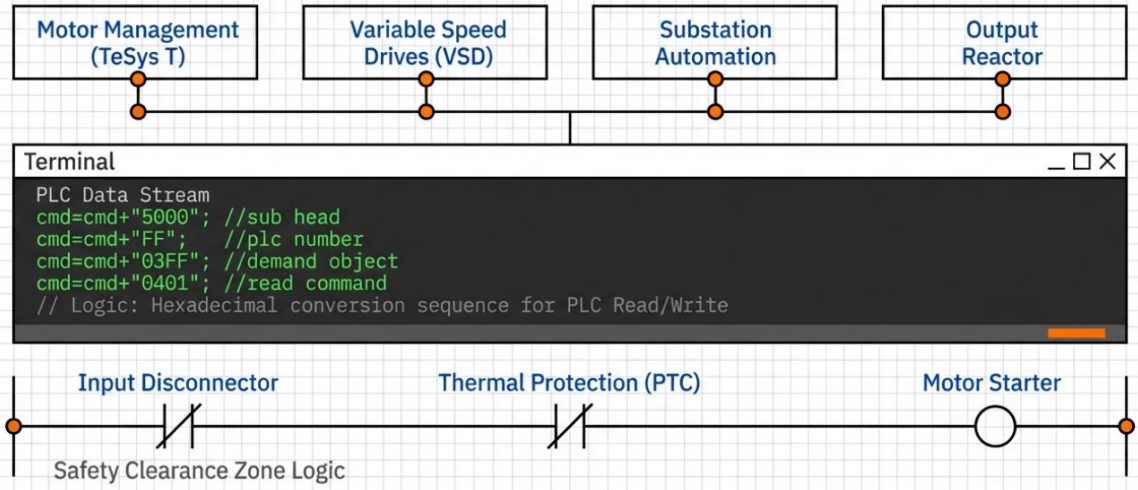
Specification Document: Series MKM35512 - Three-Phase AC Static Watt Hour Smart Meter

Device Class	Series MKM35512
Accuracy	Class 0.5 (IEC 62056)
Voltage Input	240 VAC +20%
Current Range	0-60A (Dynamic peak 72A)
Frequency	50Hz ±5%
Modules	GPRS (SIM), Optical RSS, Relay Driver
Measurement	4-Quadrant (Import/Export KWh/KVARh)


Current/Voltage Sensors
MCU (Micro Controller Unit)
LCD Display (8x16 Segment)
Non-Volatile Memory (256KB Flash)
GPRS / Communication Interface
Warning: Anti-Tamper Features: Magnetic Detection / Cover Open Switch

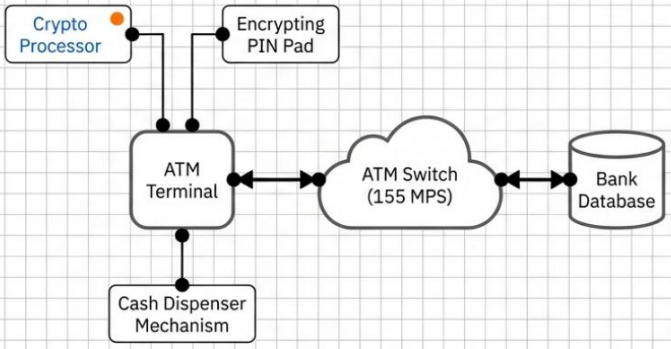
NotebookLM

Industrial Automation & PLC Architecture



NotebookLM

Software Development: Banking & ATM Architecture



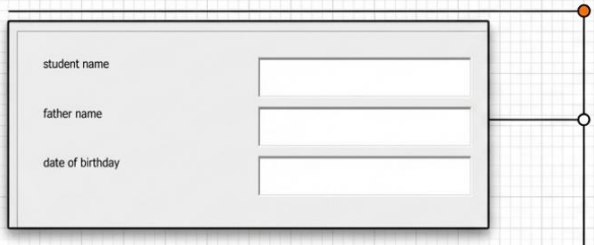
VB.NET Transaction Logic

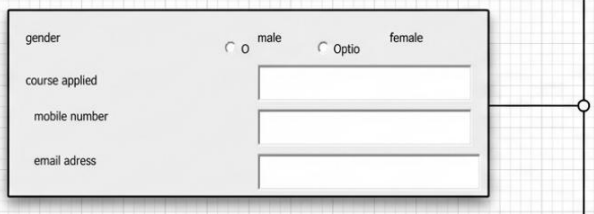
```
Public Class TransactionBox
    Const service_charge as Decimal = 6.5
    Const pin as Integer = 9343
    Dim balance as Decimal = 150


    Private Function Deposit(ByRef amount as Decimal)
        balance = amount
        Return balance
    End Function
End Class
```

NotebookLM

Administrative Systems Development (VBA)

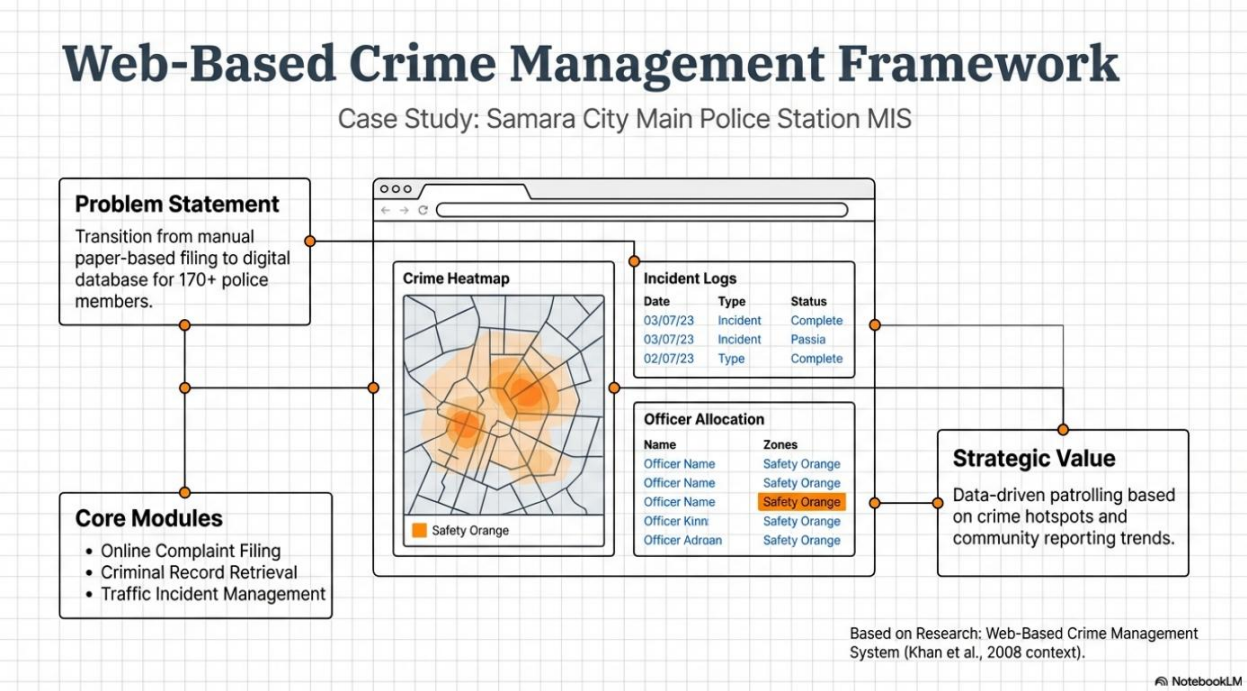


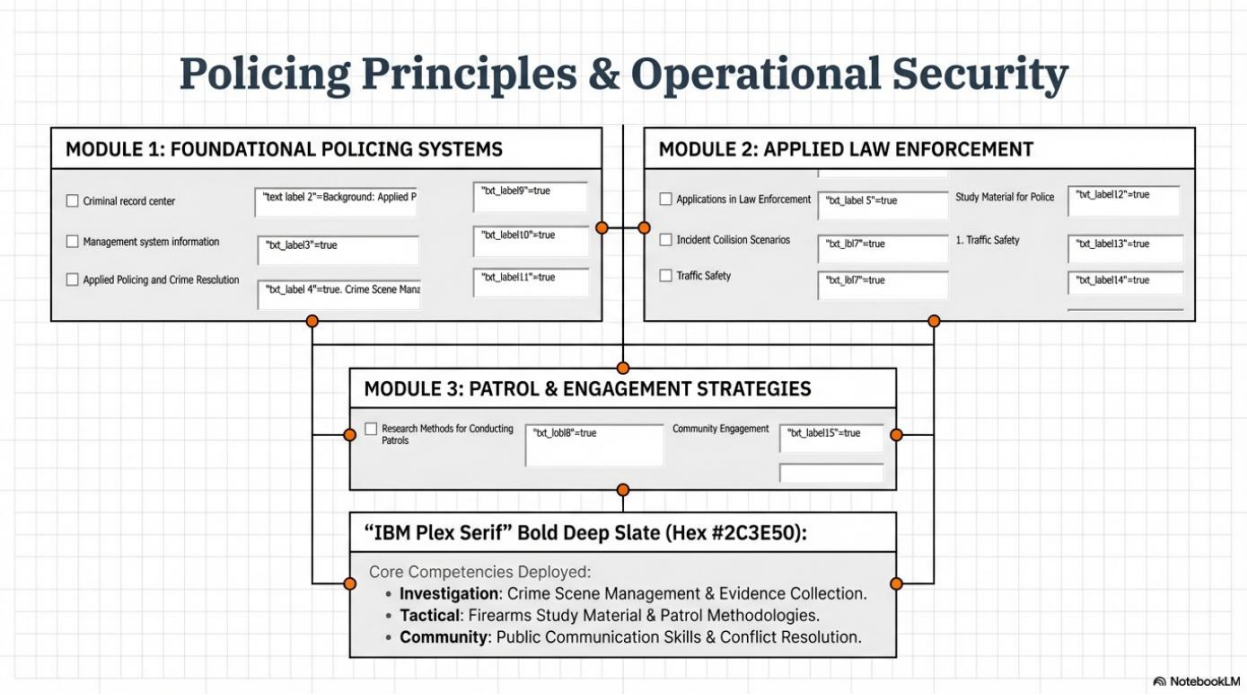


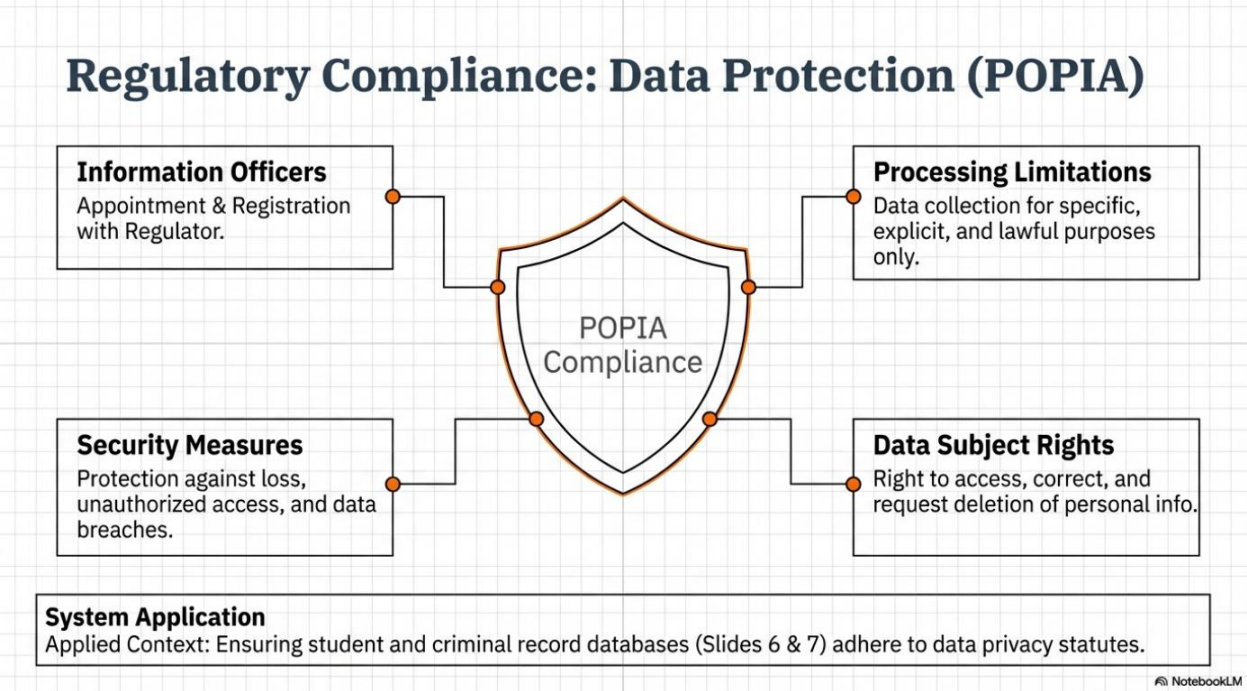
Technical Implementation

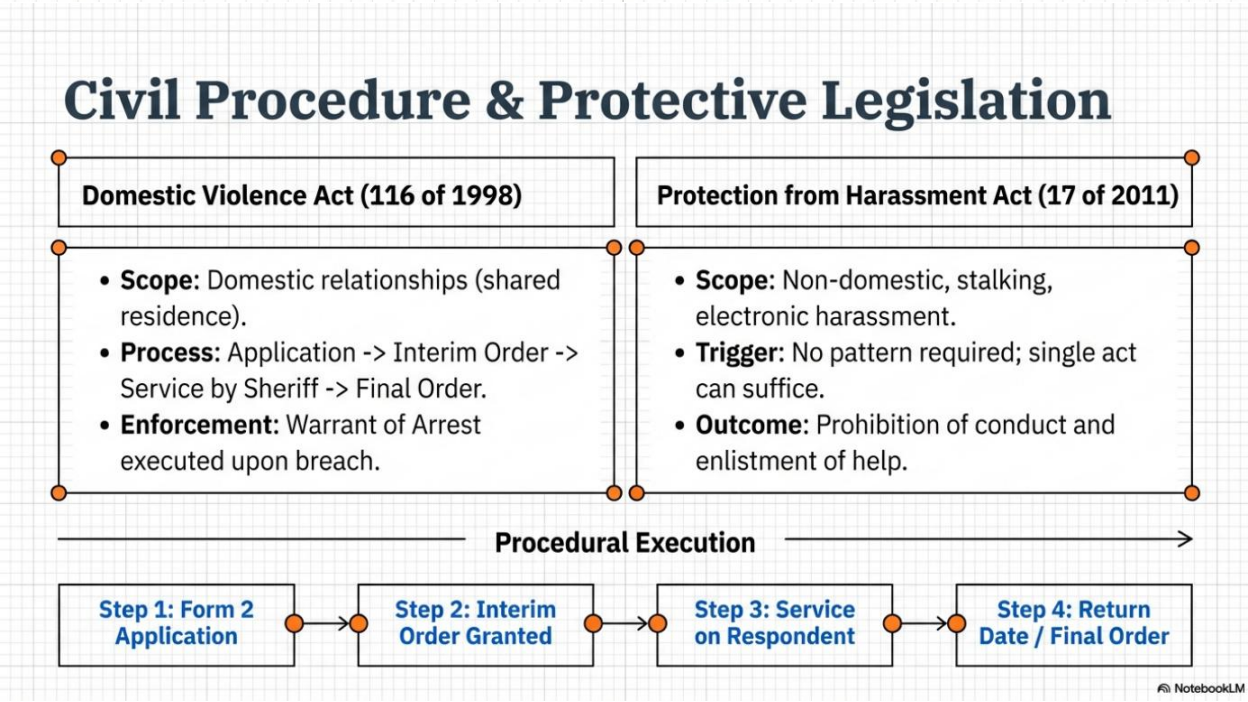
- **Project:** Automated Student Registration System
- **Tech Stack:** Excel VBA, MS Access Database, UserForms.
- **Key Features:**
  - Regex Email Validation: `.Pattern = "^[\w-\.]{1,}\@…"`
  - Dynamic Range Assignment: `shSupport.Range("A2"…).Name = "Dynamic"`
  - Image Handling: `LoadPicture` for student IDs.
  - Error Handling: `On Error Resume Next` integration.

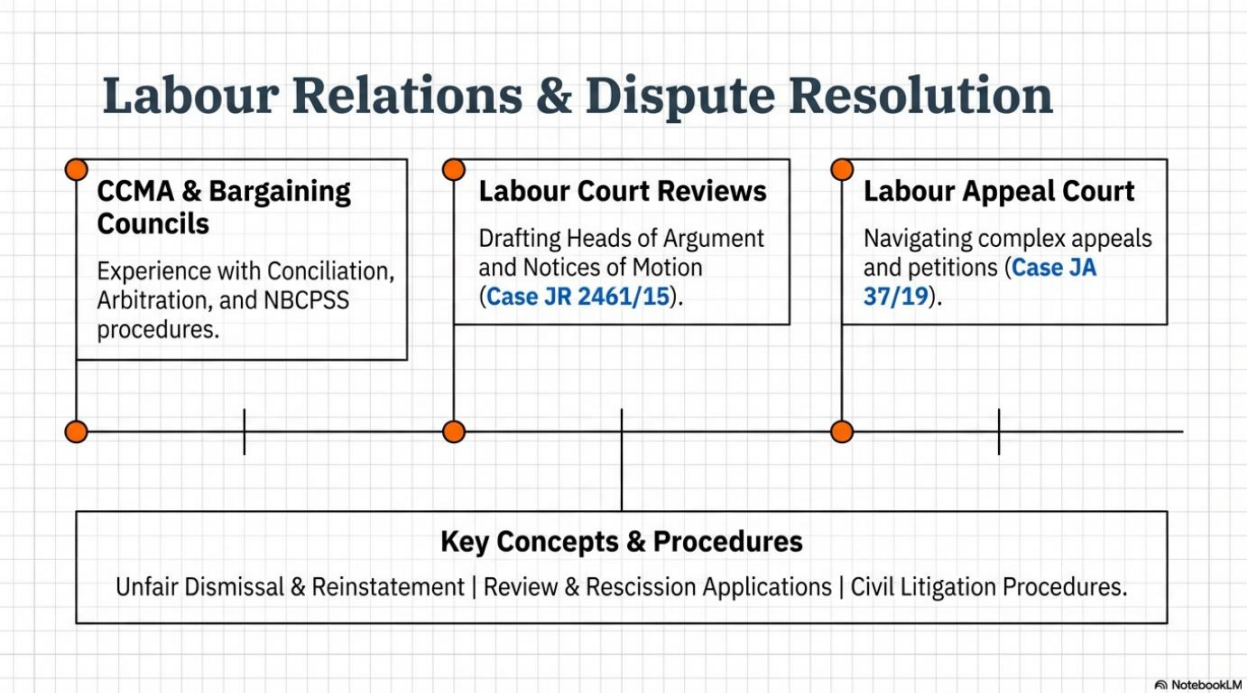
NotebookLM

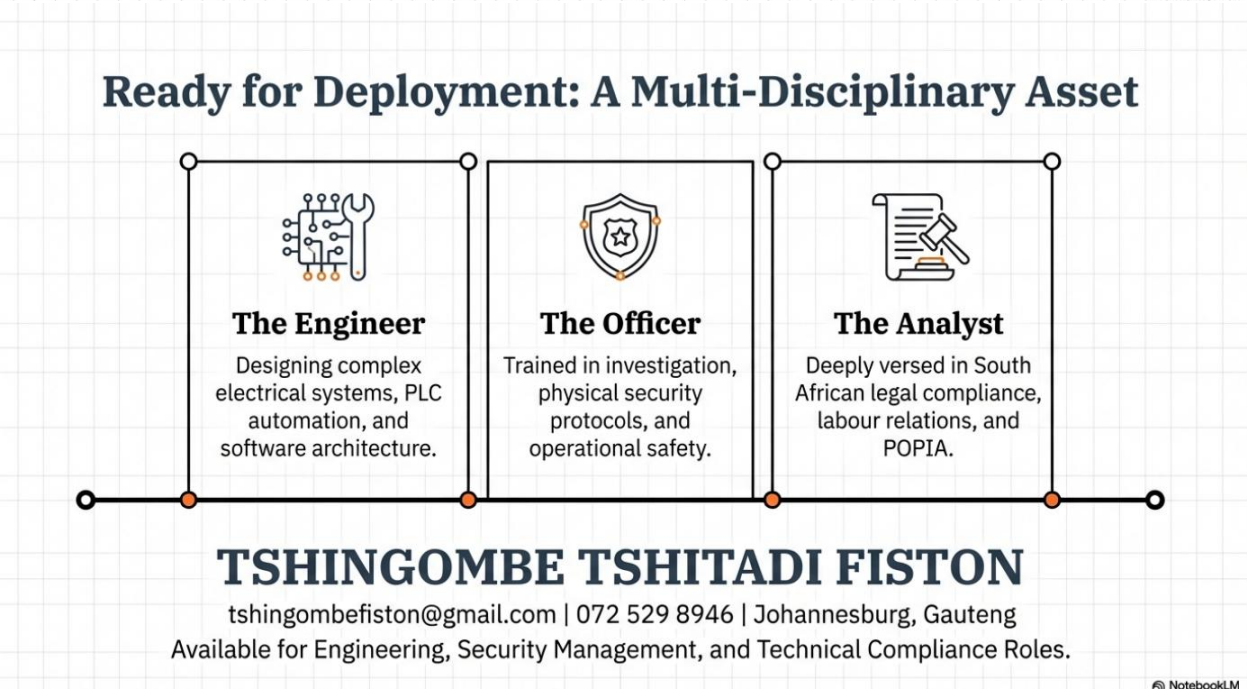

Web-Based Crime Management Framework
Case Study: Samara City Main Police Station MIS
Problem Statement
Transition from manual paper-based filing to digital database for 170+ police members.
Crime Heatmap
Safety Orange
Incident Logs
Date Type Status
03/07/23 Incident Complete
03/07/23 Incident Passia
02/07/23 Type Complete
Officer Allocation
Name Zones
Officer Name Safety Orange
Officer Name Safety Orange
Officer Name Safety Orange
Officer Kinn Safety Orange
Officer Adrian Safety Orange
Strategic Value
Data-driven patrolling based on crime hotspots and community reporting trends.
Core Modules
• Online Complaint Filing
• Criminal Record Retrieval
• Traffic Incident Management
Based on Research: Web-Based Crime Management System (Khan et al., 2008 context).
NotebookLM


Policing Principles & Operational Security
MODULE 1: FOUNDATIONAL POLICING SYSTEMS
Criminal record center
Management system information
Applied Policing and Crime Resolution
MODULE 2: APPLIED LAW ENFORCEMENT
Applications in Law Enforcement
Incident Collision Scenarios
Traffic Safety
Study Material for Police
1. Traffic Safety
MODULE 3: PATROL & ENGAGEMENT STRATEGIES
Research Methods for Conducting Patrols
Community Engagement
"IBM Plex Serif" Bold Deep Slate (Hex #2C3E50):
Core Competencies Deployed:
• Investigation: Crime Scene Management & Evidence Collection.
• Tactical: Firearms Study Material & Patrol Methodologies.
• Community: Public Communication Skills & Conflict Resolution.
NotebookLM


Regulatory Compliance: Data Protection (POPIA)
Information Officers
Appointment & Registration with Regulator.
Processing Limitations
Data collection for specific, explicit, and lawful purposes only.
POPIA Compliance
Security Measures
Protection against loss, unauthorized access, and data breaches.
Data Subject Rights
Right to access, correct, and request deletion of personal info.
System Application
Applied Context: Ensuring student and criminal record databases (Slides 6 & 7) adhere to data privacy statutes.
NotebookLM

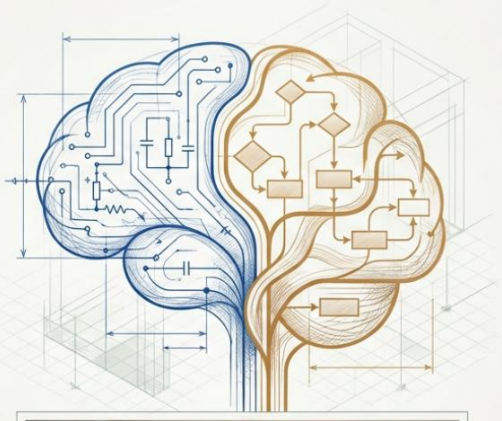

Civil Procedure & Protective Legislation
Domestic Violence Act (116 of 1998)
Scope: Domestic relationships (shared residence).
Process: Application -> Interim Order -> Service by Sheriff -> Final Order.
Enforcement: Warrant of Arrest executed upon breach.
Protection from Harassment Act (17 of 2011)
Scope: Non-domestic, stalking, electronic harassment.
Trigger: No pattern required; single act can suffice.
Outcome: Prohibition of conduct and enlistment of help.
Procedural Execution
Step 1: Form 2 Application
Step 2: Interim Order Granted
Step 3: Service on Respondent
Step 4: Return Date / Final Order
NotebookLM


Labour Relations & Dispute Resolution
CCMA & Bargaining Councils
Experience with Conciliation, Arbitration, and NBCPSS procedures.
Labour Court Reviews
Drafting Heads of Argument and Notices of Motion (Case JR 2461/15).
Labour Appeal Court
Navigating complex appeals and petitions (Case JA 37/19).
Key Concepts & Procedures
Unfair Dismissal & Reinstatement | Review & Rescission Applications | Civil Litigation Procedures.
NotebookLM


Ready for Deployment: A Multi-Disciplinary Asset
The Engineer
Designing complex electrical systems, PLC automation, and software architecture.
The Officer
Trained in investigation, physical security protocols, and operational safety.
The Analyst
Deeply versed in South African legal compliance, labour relations, and POPIA.
TSHINGOMBE TSHITADI FISTON
tshingombefiston@gmail.com | 072 529 8946 | Johannesburg, Gauteng
Available for Engineering, Security Management, and Technical Compliance Roles.
NotebookLM

Engineering Systems, Navigating Complexity

The Professional Portfolio of T. Fiston Tshingombe



Electrical Engineering | Software Development | System Analysis | Resilience

NotebookLM

A Multi-Domain Expert

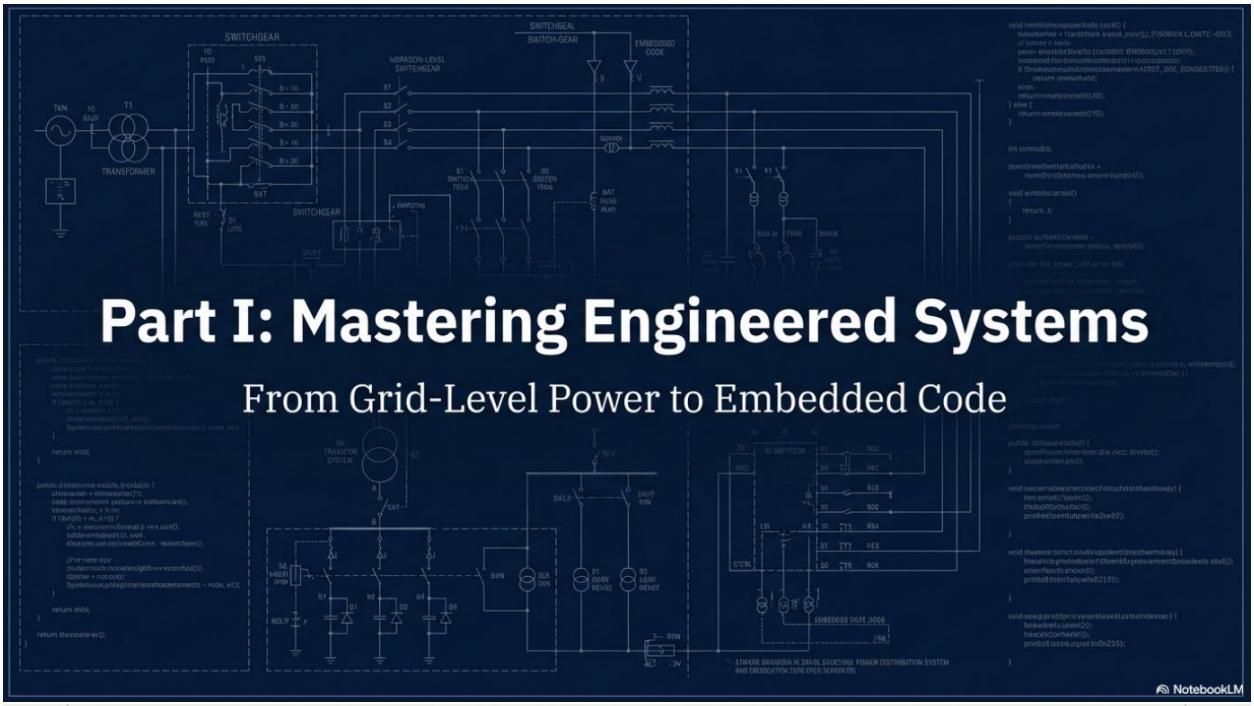
A presentation in two parts, showcasing a decade of experience in designing and implementing complex electrical and software systems while concurrently navigating the intricate procedural demands of the South African legal system.

1. **Part I: Mastering Engineered Systems - A portfolio of core technical projects.**
   IBM Plex Serif Regular (400)

2. **Part II: Navigating Human Systems** - A case study in systematic problem-solving and resilience.
   IBM Plex Serif Regular (400)

3. **Synthesis: Core competencies and forward outlook.**
   IBM Plex Serif Regular (400)

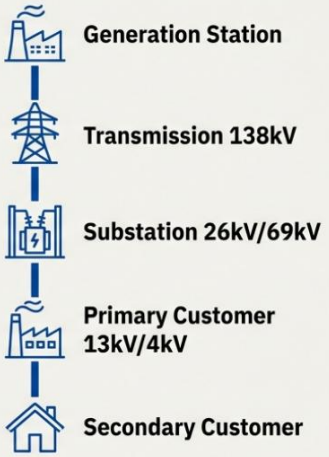
NotebookLM



Architecting the Flow of Energy

Key Areas of Expertise

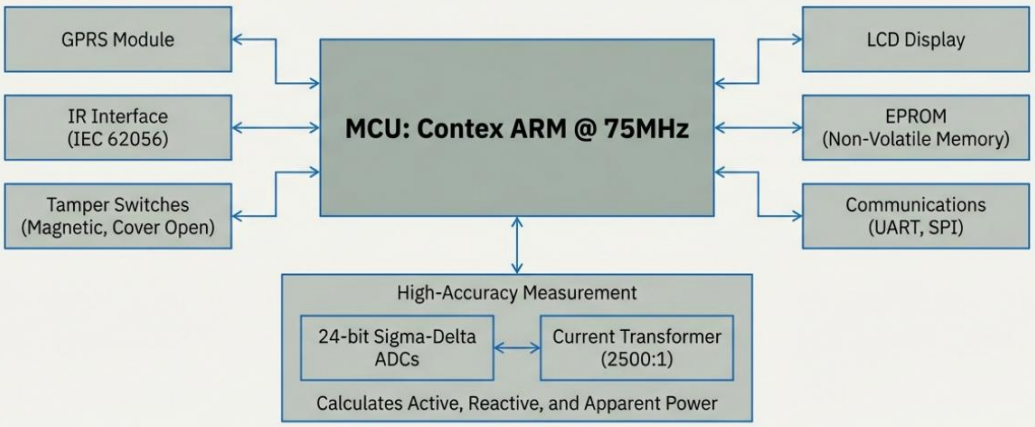
- **Power Generation & Distribution**
  Experience with the full energy lifecycle from "Generation station" to "secondary customer," covering voltages from 138kV down to 4kV.
- **Photovoltaic Systems**
  Design and implementation knowledge of grid-tied PV installations ranging from 6.5kW to 250kW.
- **Industrial Control Systems**
  Expertise in motor management controllers (specifically "Tesys T LTMR"), Variable Speed Drives (VSDs), and protection relays.
- **Component-Level Knowledge**
  Deep understanding of transformers, switchgear, PLCs, and "Power micrologic units."



NotebookLM

Project Showcase: Three-Phase Smart Meter Architecture

Analysis of a three-phase AC static watt-hour smart meter based on the MKM35512 series MCU, designed for real-time, low-power grid monitoring and secure data communication.

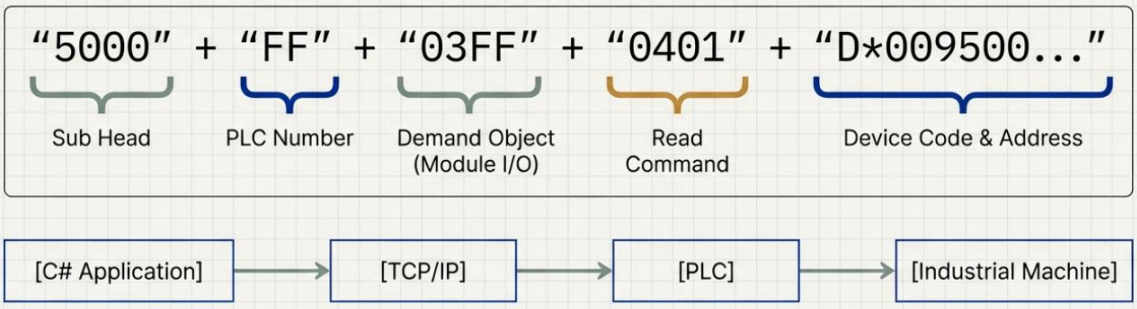


NotebookLM

Bridging the Physical and Digital Worlds with PLCs

Focus Area:
Programming and communication with Programmable Logic Controllers (PLCs) for industrial automation.

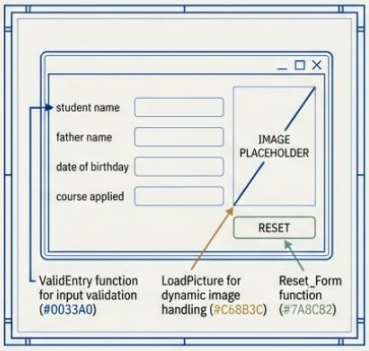
Key Skill: Protocol Command Construction
Demonstrated ability to construct and parse multi-part command strings in C# for PLC data exchange.

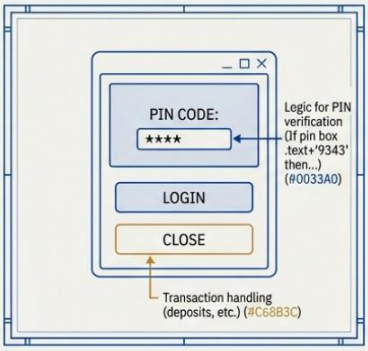


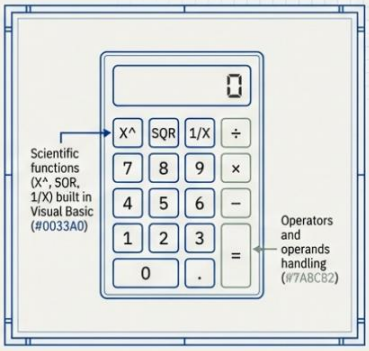
NotebookLM

Creating Practical Solutions with Code

A portfolio of applications developed using Visual Basic (VBA/VB.NET) to solve specific business and engineering challenges.







Automated Student Registration

An Excel/VBA UserForm featuring database integration, input validation, dynamic image handling, and a reset function.

Visual Basic ATM System

A functional simulation of an ATM interface in VB.NET with logic for PIN verification, deposits, and transaction handling.

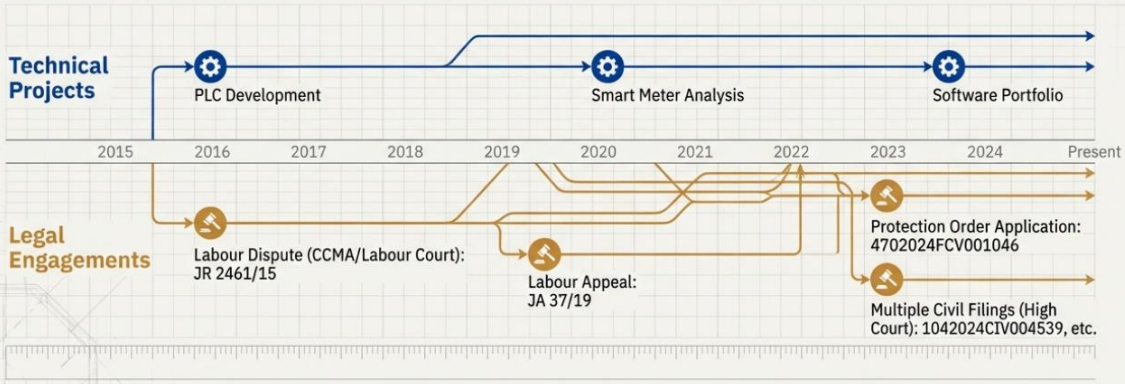
Engineering Calculator

A custom calculator with scientific functions built in Visual Basic, handling operators and operands.

NotebookLM

A Systematic Approach to the Legal Landscape

Concurrently with a demanding technical career, successfully managed multiple, multi-year legal cases requiring deep procedural understanding and meticulous self-representation.



NotebookLM

Deconstructing the Legal Process: An Engineer's Methodology

Applied a systematic, engineering-based methodology to legal casework, treating procedural law as a complex system to be analyzed, documented, and navigated.

Evidence of Methodical Approach

Meticulous Documentation

Created comprehensive indexes of pleadings, evidence, and affidavits for appeals. The file index for `JA 37/19` included sections for court orders, notices of motion, petitions, proof of service, and transcription records.

Procedural Adherence & Form Mastery

Correctly prepared and filed numerous legal forms across different bodies, including "notice of motion," "petition for leave to appeal," "affidavit in support of service," and "rescission ruling" applications.

Multi-Agency Interaction

Coordinated actions and filings with a wide range of state and private entities, including the Department of Justice (DOJ), CCMA, SAQA, Department of Higher Education (DHE), and South African Police Service (SAPS).

Visual Evidence

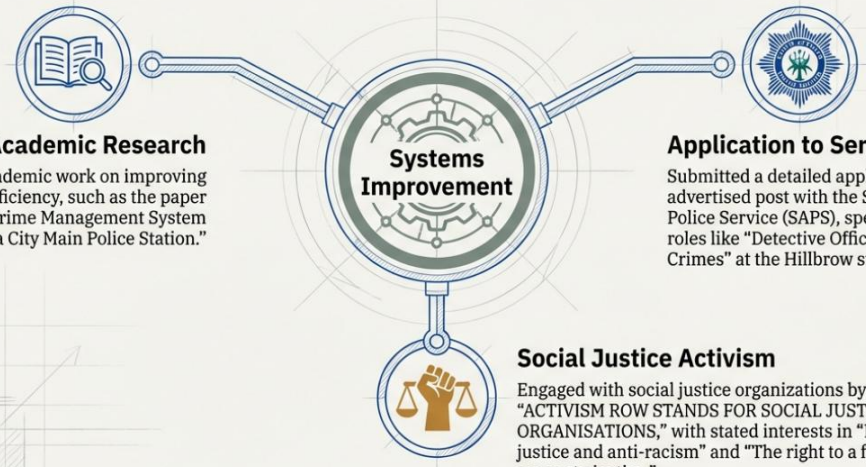
Example: Index of Pleadings for Appeal (JA 37/19)

Description of Document	Page No.
Notice of Motion: Petition for Leave to Appeal	1-36
Affidavit in Support of Application	80-82
Proof of Service Records	Various
Notice of Record Order Transcript	102-104
Notice of Motion Submission for Application	36-80

NotebookLM

Applyintlying Systems Thinking to Public Service

Interest extends beyond personal cases to the systematic improvement of public systems, particularly in justice and law enforcement.



Academic Research

Explored academic work on improving police efficiency, such as the paper "Web-Based Crime Management System for Samara City Main Police Station."

Application to Serve

Submitted a detailed application for an advertised post with the South African Police Service (SAPS), specifically for roles like "Detective Officer: Economic Crimes" at the Hillbrow station.

Social Justice Activism

Engaged with social justice organizations by applying to "ACTIVISM ROW STANDS FOR SOCIAL JUSTICE ORGANISATIONS," with stated interests in "Racial justice and anti-racism" and "The right to a fair trial and access to justice."

NotebookLM

A Unified Skillset: Technical Acumen and Proven Character

Technical Acumen

- Power Systems Analysis & Design (MV/LV)
- Embedded Systems & IoT (Smart Metering)
- Industrial Automation & PLC Communication
- Application Development (VB.NET, VBA, C#)
- Application Development (VB.NET, VBA, C#)
- Database Management & UI Design

Demonstrated Character

- **Exceptional Resilience:** Sustained high-level technical work through multi-year legal challenges.
- **Systematic Problem-Solving:** Applied engineering discipline to deconstruct and navigate complex legal procedures.
- **High Agency & Self-Advocacy:** Proactively managed all aspects of complex personal and professional life.
- **Unwavering Tenacity:** Pursued objectives through multiple levels of bureaucracy and the court system.
- **Meticulous Attention to Detail:** Evidenced by the preparation of comprehensive legal indexes and procedural filings.

NotebookLM

Ready for the Next Challenge

"The ability to design a circuit, write a program, or navigate a courtroom stems from the same core skill: the patient, logical deconstruction of a complex system. I am equipped and eager to apply my unique blend of technical and practical experience to solve the next generation of challenges."

Name: Tshingombe T. Fiston
Email: TSHINGOMBE@GMAIL.COM
[LinkedIn Profile URL]

NotebookLM

Understanding Protection Orders in South Africa: Your Legal Path to Safety

The South African legal system provides specific court orders to protect individuals from abuse and harassment. The process is designed to offer immediate, interim protection while the court considers making the order final. Understanding which type of order fits your situation is the first step.

WHICH PROTECTION ORDER DO YOU NEED?

Domestic Violence Protection Order (DPO)

For abuse from someone you have **a domestic relationship with** (e.g., family, partner, roommate).

- **Relationship Required:** Yes, a domestic relationship is required.
- **Pattern of Abuse:** Requires a pattern of abusive actions.
- **Examples:** Physical, sexual, financial, emotional abuse.

Harassment Protection Order (HPO)

For abuse from someone you **are not in a domestic relationship with** (e.g., a neighbor).

- **Relationship Required:** No relationship is required.
- **Pattern of Abuse:** A single incident can be sufficient.
- **Examples:** Unwanted messages, stalking, financial harm.

THE 5-STEP PROCESS TO GET A PROTECTION ORDER

1. Apply at the Magistrate's Court

Complete the required application form (Form 2) with a detailed affidavit explaining the abuse.

2. Obtain an Interim Order

The court reviews your application and may issue a temporary order for immediate protection.

3. Serve the Order

The interim order must be officially served on the respondent by a sheriff or police officer.

4. Attend the Court Hearing

The court hears evidence to decide whether to grant a permanent, final protection order.

What if the Order is Violated?

Breaching a protection order is a criminal offense punishable by a fine or up to 5 years in prison.

NotebookLM

Understanding Protection Orders in South Africa: Your Legal Path to Safety

The South African legal system provides specific court orders to protect individuals from abuse and harassment. The process is designed to offer immediate, interim protection while the court considers making the order final. Understanding which type of order fits your situation is the first step.

WHICH PROTECTION ORDER DO YOU NEED?

Domestic Violence Protection Order (DPO)

For abuse from someone you have a domestic relationship with (e.g., family, partner, roommate).

KEY DIFFERENCES & REQUIREMENTS

Relationship Required: Yes, a domestic relationship is required.

Pattern of Abuse: Requires a pattern of abusive actions.

Examples: Physical, sexual, financial, emotional abuss.

Harassment Protection Order (HPO)

For abuse from someone you are not in a domestic relationship with (e.g., a neighbor).

KEY DIFFERENCES & REQUIREMENTS

Relationship Required: No relationship is required.

Pattern of Abuse: A single incident can be sufficient.

Examples: Unwanted messages, stalking, financial harm.

THE 5-STEP PROCESS TO GET A PROTECTION ORDER

1. Apply at the Magistrate's Court

Complete the required application form (Form 2) with a detailed affidavit explaining the abuse.

2. Obtain an Interim Order

The court reviews your application and may issue a temporary order for immediate protection.

3. Serve the Order

The interim order must be officially served on the respondent by a sheriff or police officer.

4. Attend the Court Hearing

The court hears evidence to decide whether to grant a permanent, final protection order.

WHAT IF THE ORDER IS VIOLATED?

Breaching a protection order is a criminal offense punishable by a fine or up to 5 years in prison.

NotebookLM